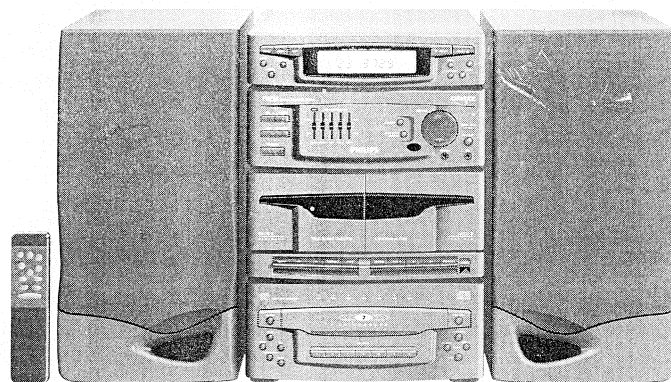


Service
Service
Service



Service Manual

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PHILIPS

SPECIFICATIONS

GENERAL

Mains voltage/setting	: 230V for -/20/22 240V for -/25/30 Switchable 120V - 230V (Set at 230V) for -/21
Mains frequency	: 50Hz
Mains breakdown protection	: 10 minutes
Clock Accuracy	: < 4 sec/day
Power consumption	: 126W max.
Dimension centre unit	: 240 x 352.5 x 273mm

TUNER : FM SECTION

Tuning range	: 87.5MHz - 108MHz
IF frequency	: 10.7MHz
Aerial input	: 75 Ω coaxial
Sensitivity at 26dB S/N	: < 8 μ V {6.9 μ V}
Selectivity at 600kHz bandwidth	: > 20dB {30dB}
IF rejection	: > 50dB {60dB}
Image rejection	: > 20dB {25dB}

TUNER : AM SECTION

Tuning range	MW : 522kHz - 1611kHz LW : 153kHz - 279kHz
IF frequency	: 450kHz
Sensitivity at 26dB S/N	MW : < 3.6mV/M {3.2mV/M} LW : < 6.0mV/M {6.0mV/M}
Selectivity at 18kHz bandwidth	MW : > 16dB {20dB} LW : > 20dB {24dB}
IF rejection	MW : > 24dB {24dB} LW : > 26dB {26dB}
Image rejection	MW : > 28dB {28dB} LW : > 30dB {30dB}

AMPLIFIER

Output power at 10% distortion	: 2 x 12W -1dB
Speaker impedance	: 2 x 6 Ω L/R
Frequency response within -3dB	: 63Hz - 15kHz
DBB & Equalizer control	: -6dB to +6dB
Headphone output at 32 Ω	: 25mW
Input sensitivity	Aux/TV : 400mV at 47k Ω Mic : 1.5mV at 600 Ω for -/21 and -/30

CASSETTE RECORDER

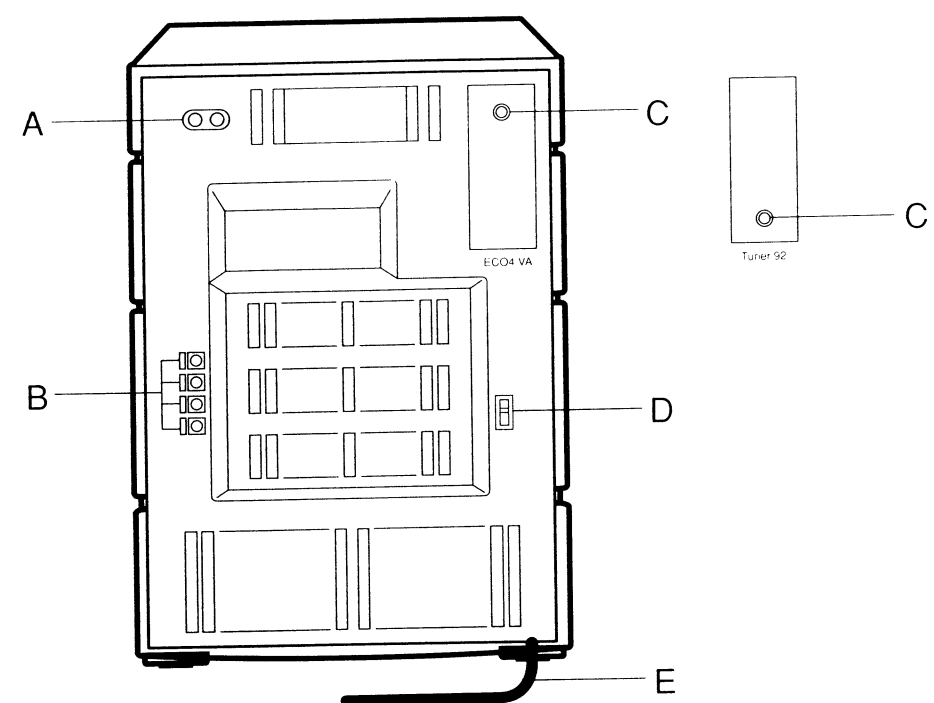
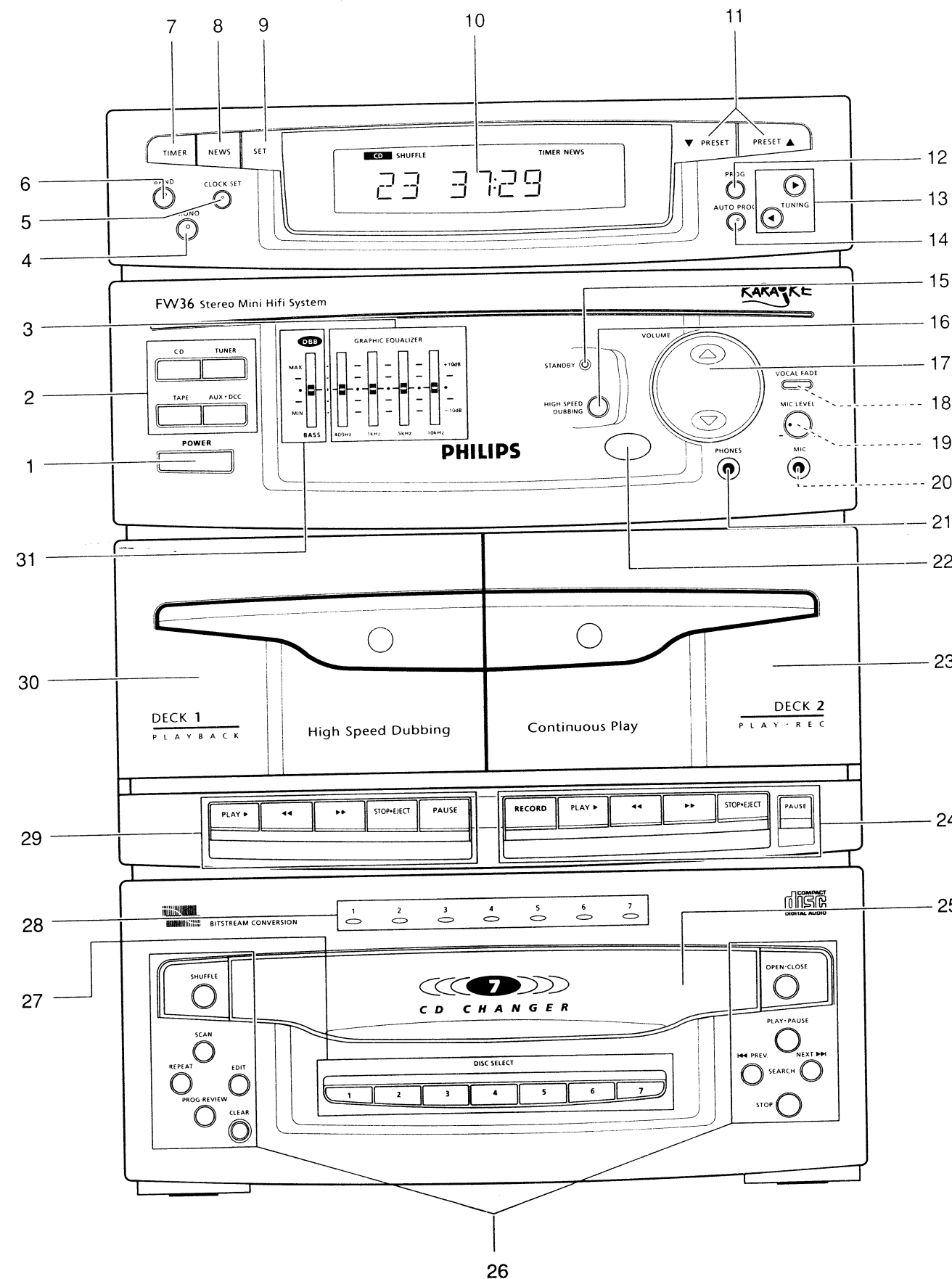
Number of track	: 2 x 2 stereo
Tape speed	: 4.76 cm/sec $\pm$ 2% 1.8 x 4.76 cm/sec
Wow and flutter	: < 0.4%
Fast-wind time C60	: 130 sec
Bias system	: 65kHz $\pm$ 5kHz
Recording playback frequency response within -8dB	: 250Hz - 6300Hz
Signal to noise ratio	: > 41dB

COMPACT DISC

Frequency response within +2dB/-4dB	: 20Hz - 20kHz
Signal/Hiss ratio	: > 75dB
Distortion at 1kHz	: < 0.03%
Channel difference at 1kHz	: < 2dB
Channel crosstalk at 1kHz	: > 60dB
De-emphasis	: 0 or 15/50 μ S (Switched by subcode on the disc)

{..} Values for /22 only

CONNECTIONS AND CONTROLS



CONNECTIONS AND CONTROLS

1	Power	1414	25	CDC Tray	
2	Function controls	CD 1421	26	CDC controls	Shuffle 1450
		Tuner 1426			Scan 1451
		Tape 1420			Repeat 1459
		Aux/DCC 1410			Program/Review 1458
3	Graphic equalizer	3508 - 3511			Edit 1454
4	Mono	1419			Clear 1455
5	Clock set	1418			Stop 1456
6	Band	1425			Play/Pause 1460
7	Timer	1424			Open/Close 1462
8	News	1423			Next 1461
9	Set	1422			Previous 1457
10	LCD display	1401	27	Disc select	
11	Presets up/down	1428, 1429	28	Disc indicator	
12	Program	1413	29	Play Deck controls	Play
13	Tuning up/down	1412, 1416			Rewind
14	Auto program	1417			Fast forward
15	Standby LED	6420			Stop/Eject
16	High dpeed dubbing	1415			Pause
17	Volume up/down	1411, 1427	30	Cassette compartment 1	
18	Vocal fade*	1553	31	DBB control	3507
19	Mic level*	3673	A	Aux/TV input	1552
20	Mic input*	1551	B	Loudspeaker sockets	1304
21	Headphone socket	1550	C	FM antenna socket	1101 or 1110
22	IR sensor	6406	D	Voltage selector	1281
23	Cassette compartment 2		E	Mains cord	
24	Rec/Pb Deck controls	Record Play Rewind Fast forward Stop/Eject Pause			

* For karaoke versions only

SERVICE TEST PROGRAM 1

Operating sequence	Display shows	Remarks	In case of problems check
Hold "Program" and "Preset Up" button down while Power on to enter Service test program.	XX YY-S # This is the main menu.	where: XX - Type no. numeric YY - Master µP version S - Service mode	
Press "Program"	PASS or P Main menu reappears after 2 seconds.	Eeprom test	Check IC if Display shows ERR or N
Press "Autoprogram"	NEW or N Main menu reappears after 2 seconds.	Eeprom is now reset to default data.	
Press "Clock Set"	32K or 32	The Alarm buzzer is turned on. An output signal of 4096Hz is available at pin 37 of the main µProcessor.	Check X'tal
Press "Clock Set"	8M or 8	The output signal at pin 37 is now 3906.25Hz.	Check 8MHz oscillator
Press "Clock Set"	Main menu reappear.		
Press "Set Timer/News"	FAST or F NOM or N Main menu reappears after 2 seconds.	Pressing "Set Timer/News" key will alternate between Fast and Normal speed. In the Fast mode the clock increases at 1 minute per second. Leaving the test program now will allow quick customer checks on the clock/timer/alarm function.	Ensure the clock is in normal speed before returning to customer.
Press "Mono" and followed by any key on the set or Remote control. Press "Mono" to return to Main menu	See key test Table 1 and 2.		
Press "News"	See Table 3 and Main menu.	Pressing the "News" key will scroll through the 4 different displays and the Main menu.	
Press "Timer"	AUX TAPE CD TUNER Main menu reappears after 2 seconds.	During source switching the set is not muted.	
Disrupt the mains supply to exit the Service test program.			Ending the Service test by pressing the "Power" key from the Main menu will render : * CD error codes to be displayed. * Tuner "Program" and "Autoprogram" keys are deactivated.

Note: XX - Model model (eg 36 for FW36, etc.)
YY - Software version, counting down from 99

TABLE 1. SERVICE KEY TEST TABLE

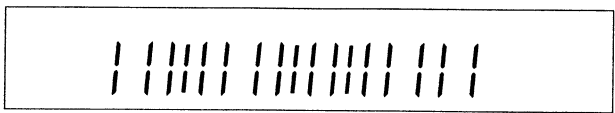
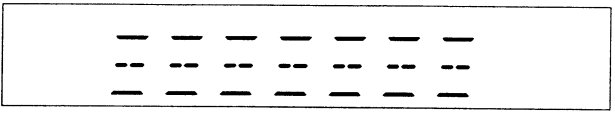
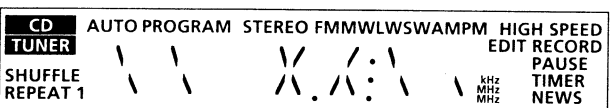
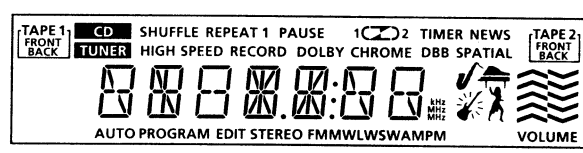
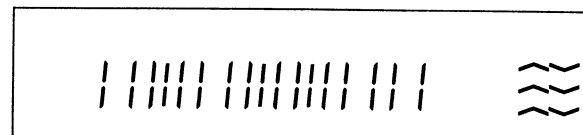
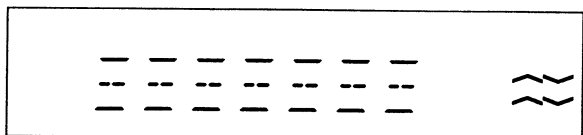
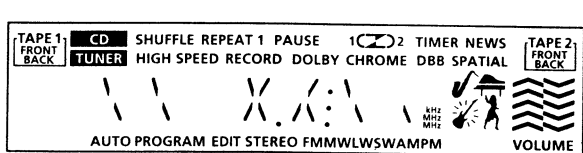
Timer/News/Tuner keys	Display	Function keys	Display	CD Keys	Display
Timer	14	CD	09	Shuffle	61
News	15	Tuner	20	Scan	62
Set	16	Tape	10	Repeat	54
Band	13	Aux/DCC	04	Prog/Review	53
Clock Set	12	Power	08	Clear	58
Mono	11	High Speed Dubbing	07	Edit	57
Preset Down	17	Volume Up	03	Stop	59
Preset Up	18	Volume Down	19	Play/Pause	55
Prog	01			Open/close	63
Autoprog	05			Next	56
Tuning Up	02			Previous	60
Tuning Down	06			Disc 1	49
				Disc 2	50
				Disc 3	51
				Disc 4	52
				Disc 5	64
				Disc 6	45
				Disc 7	46

TABLE 2. SERVICE REMOTE CONTROL KEY TEST TABLE

Function/Tuner keys	Display	CD keys	Display
News	15 RC	CD	09 RC
Standby	29 RC	Pause	38 RC
Volume up (+)	03 RC	Stop	59 RC
Volume down (-)	19 RC	Play	37 RC
Tuner	20 RC	Previous	34 RC
Preset down	17 RC	Next	33 RC
Preset up	18 RC	Disc	47 RC

Note: "RC" disappears when the key is released.

Table 3. Display and Disc indicators

For /37 only		
Steps	LCD display	Disc indicator
1		Fully on
2		Red for odd numbers Green for even numbers
3		Green for odd numbers Red for even numbers
4		Fully off
For other versions		
Steps	LCD display	Disc indicator
1		Fully on
2		Red for odd numbers Green for even numbers
3		Green for odd numbers Red for even numbers
4		Fully off

SERVICE TEST PROGRAM 2

Operating sequence	Display shows	Remarks	In case of problems check
To perform CDC test press "CD" at the Main menu screen. Service level 1 is now achieved. Press "Next" Press "Prev" Press "Shuffle" Press "Scan" Press "Stop" will exit CDC test and return to Main menu.	<i>CDC AA</i> <i>SLED O</i> <i>SLED I</i> <i>PLAY</i> <i>STOP</i>	The CDC servo version is display. AA = version number The sledge will move outward. The sledge will move inward. Start the Turntable motor in the play direction. Start the Turntable motor in the brake direction.	Pressing "Power" key at the Main menu screen will to exit Service test and enter into Service Play mode. The set will perform as normal except in the CD mode error codes will be displayed. A list of error codes are found in Table 4.
Press "Play" - Service level 2 Press "Stop"	<i>FOC 1</i>	Laser is turned on and focus is achieved. Return to Service level 1.	Check the laser and focus circuits if the display shows <i>FOC 0</i>
Press "Play" - Service level 3 Press "Stop"	<i>DISC</i>	Disc motor start to turn. Return to Service level 1.	
Press "Play" Press "Stop"	<i>RDL</i>	The Radial servo turns on and music can be heard at the Loudspeakers. Return to Service level 1.	
To perform Tuner test press "Tuner" at the Main menu screen. Use the "Preset Up" and "Preset down" to display the loaded frequencies.	<i>ZZZ</i> See Table 5.	Tuner version is display. ZZZ = Tuner version Service frequencies are now loaded into the EEROM of the μProcessor.	
To end the Service test program disrupt the mains supply.			Ending the Service test by pressing the "Power" key from the Main menu will render: * CD error codes to be displayed. * Tuner "Program" and "Autoprogram" keys are deactivated.

TABLE 4. CD ERROR CODES TABLE

Error codes		Error description
E 1002	F	Focus error
E 1008	W	Out of lead-in during reading TOC
E 1010	F	Radial error
E 1011	W	Sledge error
E 1012	F	Fatal sledge error
E 1013	F	Turntable motor error
E 1042	F	Internal stack overflow
E 1050	W	Edit calculation error
E 1070	F	Centering of the tray not finished on time
E 1071	F	Tray closing not finished within time
E 1072	F	Tray has not opened within time
E 1076	W	Desired disc position could not have been reached within time
E 1077	F	Pickup Switch SW1 or SW2 did not open as expected within a certain time
E 1078	F	Pickup Switch SW1 or SW2 did not close as expected within a certain time
E 1079	W	Tray open position not reached within time
E 1080	F	Miscounting of the stocker position occurred, position was correct at position 1.

Note: F = Fatal error and set stops operation
W = Warning and set continues operation

TABLE 5. TUNER SERVICE TEST FREQUENCIES

PRESET	Europe "EUR"	East Eur. "EAS"	USA "USA"	Oversea "OSC"	Japan "JAP"
1	108.00 MHz	108.00 MHz	108.00 MHz	108.00 MHz	90.00 MHz
2	87.50 MHz	65.81 MHz	87.50 MHz	87.50 MHz	76.00 MHz
3	1611 kHz	1611 kHz	1710 kHz	1710 kHz	1629 kHz
4	522 kHz	522 kHz	530 kHz	530 kHz	522 kHz
5	279 kHz	279 kHz	-	-	-
6	153 kHz	153 kHz	-	-	-
7	98.00 MHz	98.00 MHz	98.00 MHz	98.00 MHz	80.00 MHz
8	558 kHz	558 kHz	560 kHz	560 kHz	558 kHz
9	1494kHz	1494kHz	1500kHz	1500kHz	1494kHz
10	549kHz	549kHz	550kHz	550kHz	549kHz

TRADE MODE

Operating sequence	Display shows	Remarks
At the standby mode, hold the "Program" key depressed for 2-3 seconds. To exit Trade mode repeat the above procedure or activate the set with the Remote control.	Commercial story	The set performs normally except the Commercial story will be displayed after 6 seconds whenever the set is placed into standby mode.

TAPE MECHANISM ADJUSTMENT

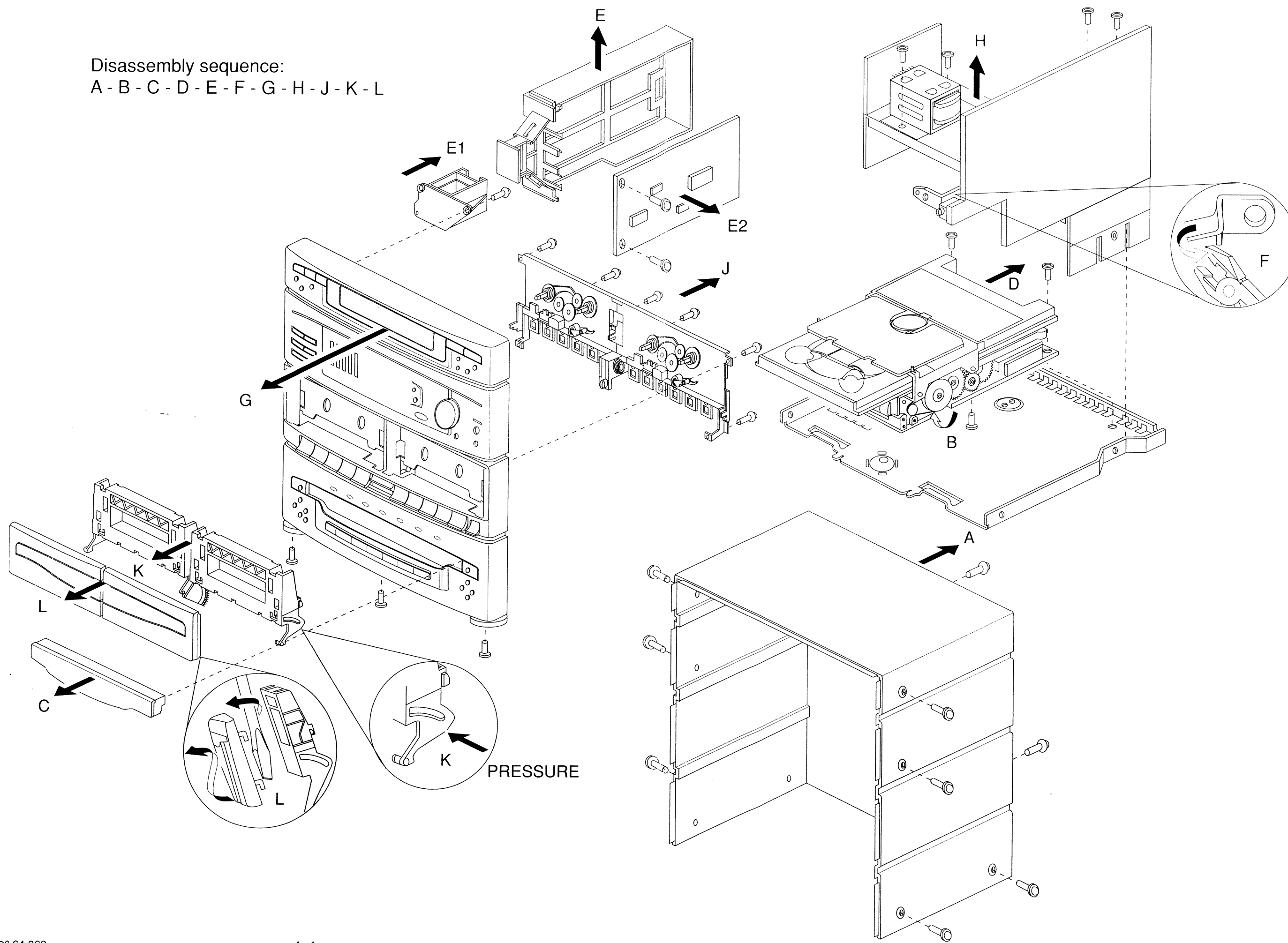
ADJUSTMENT	CASSETTE	DECK 1	DECK 2	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Azimuth	10kHz	Play	-	1550	mV-meter	Left hand screw of Play or R/P head	Maximum L = R
	SBC420*	-	Play				
Motor speed	3150Hz	Play	-	1550	Wow and Futter meter	Preset in motor	** a
	SBC420*	-	Play			-	

* SBC420: 4822 397 30071
** a The maximum permissible speed deviation is 2%.
Moreover, the wow and flutter value can be read.
This value should not exceed 0.4%.

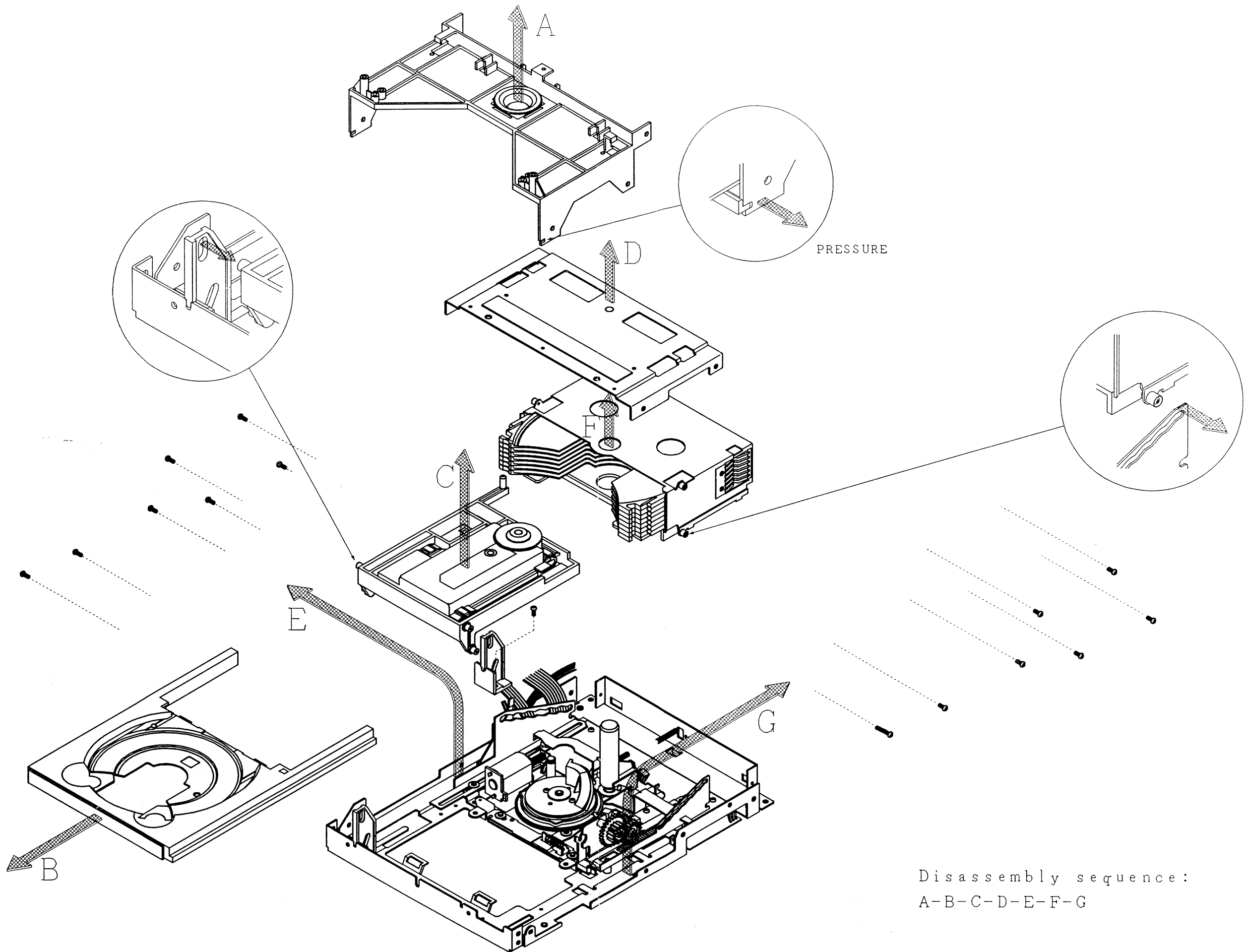
DISASSEMBLY DRAWING

Disassembly sequence:

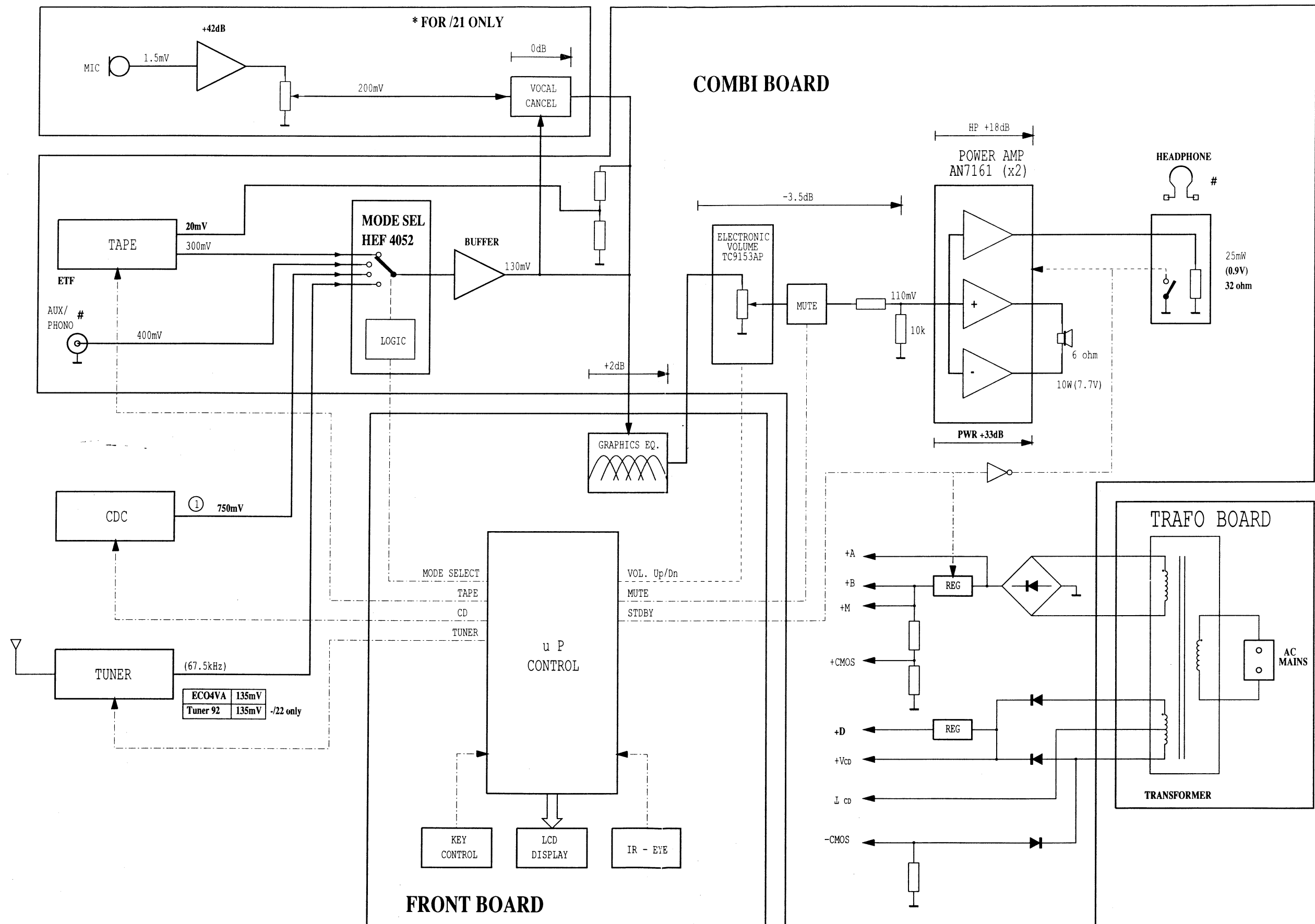
A - B - C - D - E - F - G - H - J - K - L



CDC DISASSEMBLY DRAWING



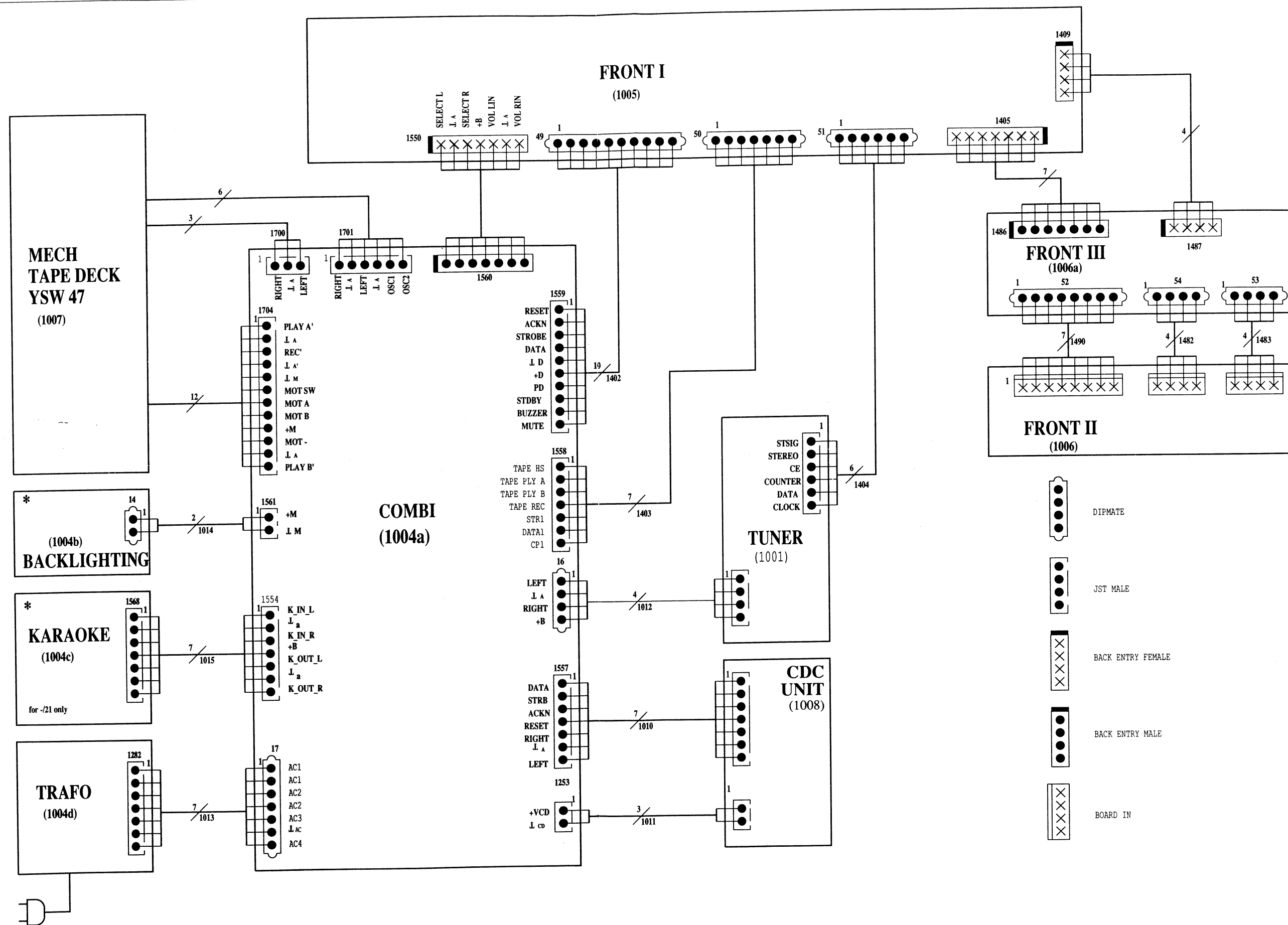
BLOCK DIAGRAM



① CD : + 2.5dB WITH -6dB disc

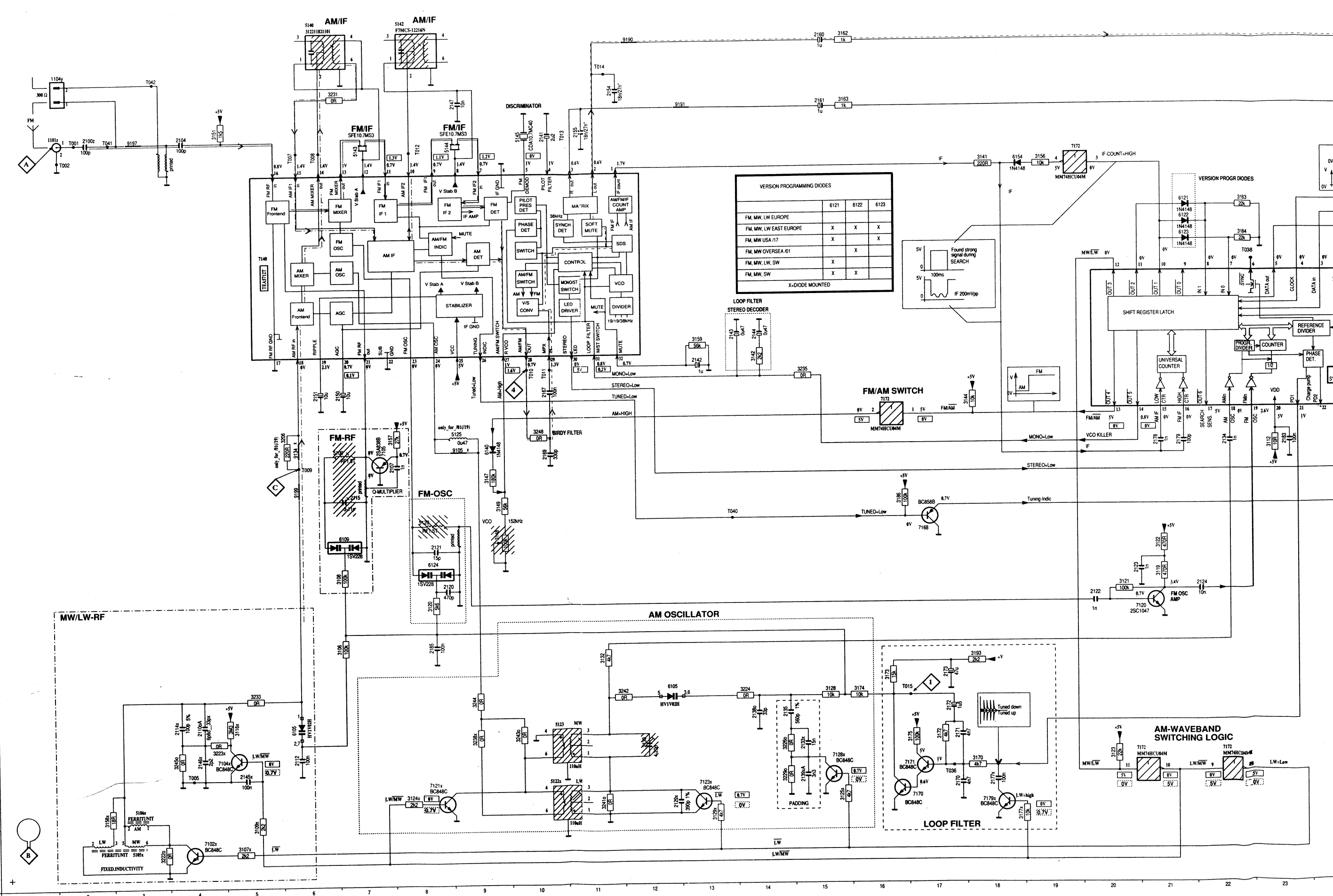
NOT FOR /37

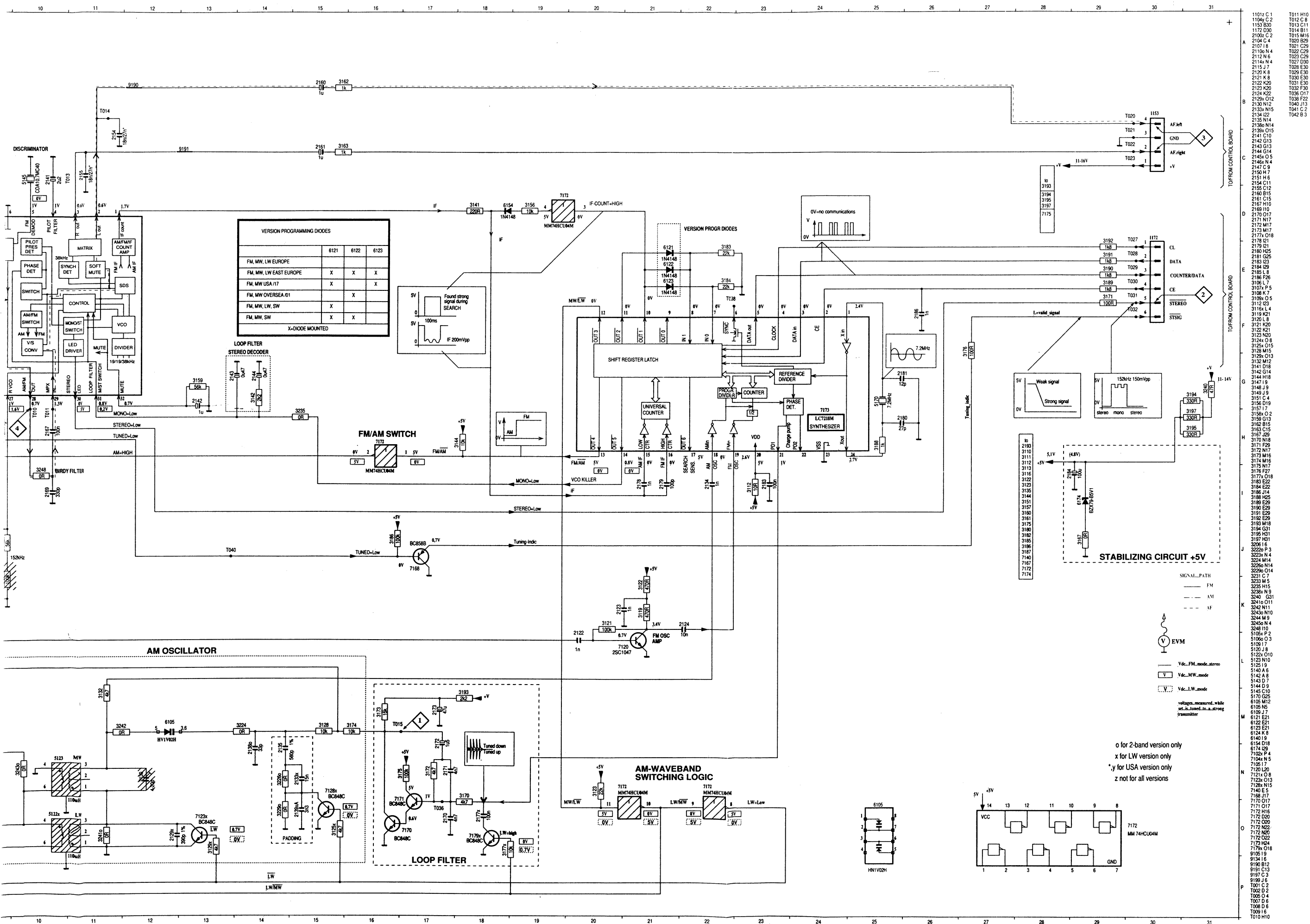
WIRING DIAGRAM



* BREAK AWAY FROM COMBI PCB

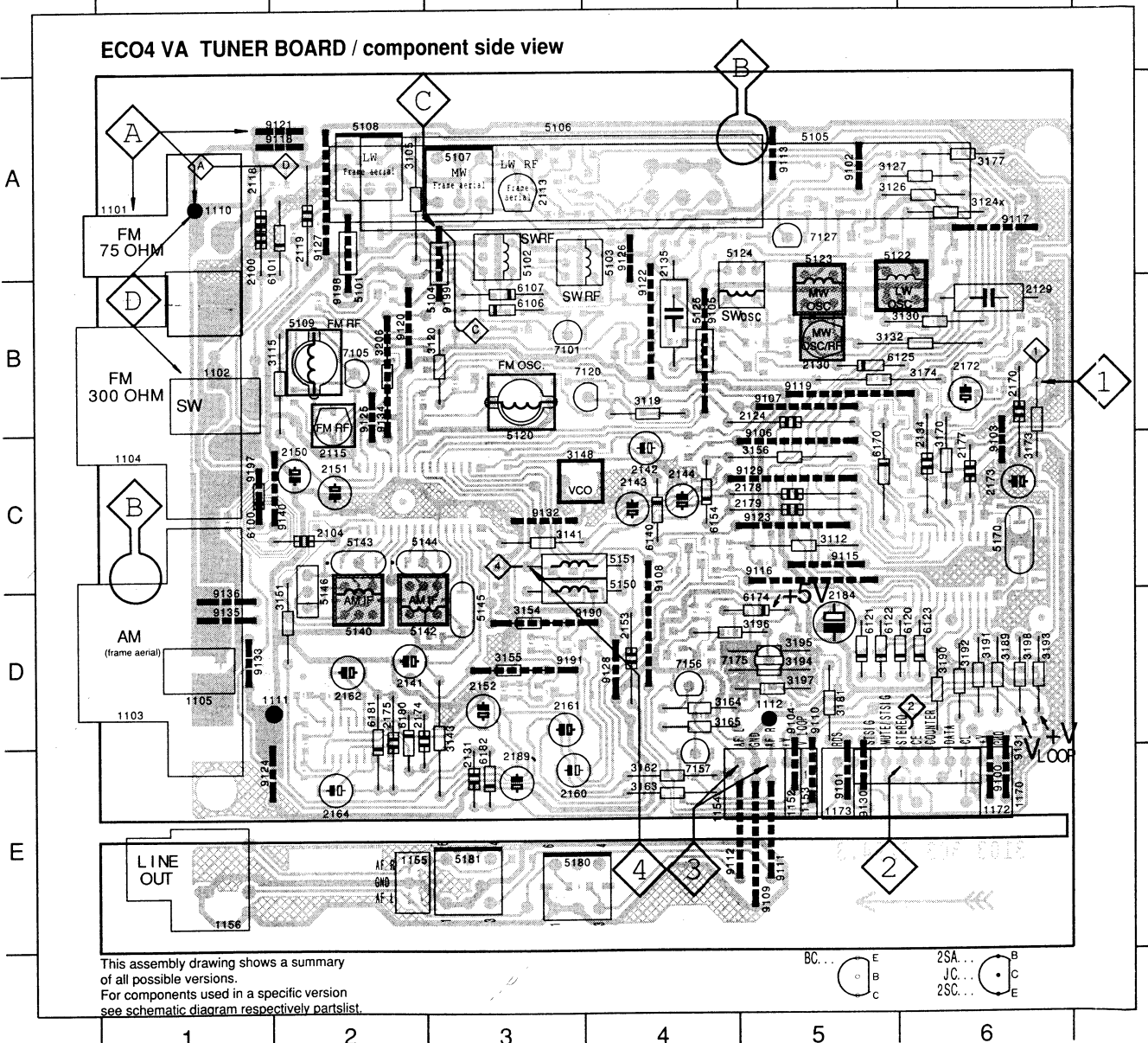
TUNER UNIT ECO4-VA (MIDI)





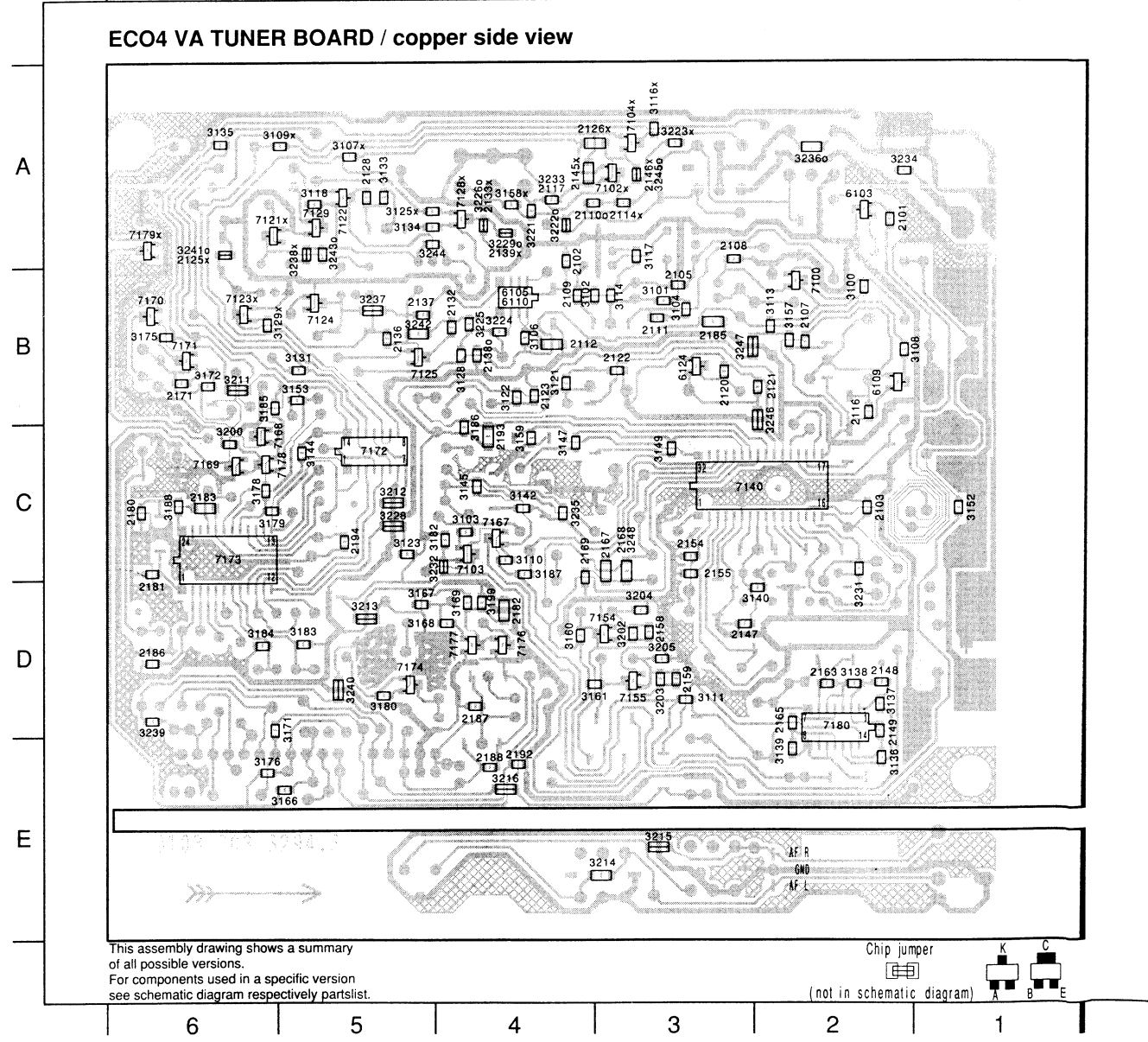
EC04VA LAYOUT (Not For /22)

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1102 B 1	1170 E 6	2104 C 2	2141 D 2	2170 B 6	3105 A 2	3148 C 3	3177 A 6	3206 B 2	5123 B 5	5180 E 3	6154 C 4	7175 D 5	9111 E 5	9124 E 1	9136 D 1
1103 D 1	1172 E 6	2106 B 4	2142 C 4	2172 B 6	3112 C 5	3151 D 2	3181 D 5	5101 A 2	5124 B 5	5181 E 3	6170 C 5	9100 E 6	9112 E 4	9125 B 2	9140 C 2
1104 B 1	1173 E 5	2113 A 3	2143 C 4	2173 C 6	3115 B 2	3154 D 3	3189 D 6	5102 A 3	5125 B 4	6100 C 1	6174 D 5	9101 E 5	9113 A 5	9126 A 4	9190 D 3
1105 D 1		2115 B 2	2144 C 4	2174 D 2	3119 B 4	3155 D 3	3190 D 6	5103 A 3	5140 D 2	6101 A 2	6180 D 2	9102 A 5	9115 C 5	9127 A 2	9191 D 3
1110 A 1		2118 A 1	2150 C 2	2175 D 2	3120 B 3	3156 C 5	3191 D 6	5104 A 3	5142 D 2	6106 B 3	6181 D 2	9103 C 6	9116 C 5	9128 D 4	9197 C 1
1111 D 2		2119 A 2	2151 C 2	2177 C 6	3124 A 6	3162 E 4	3192 D 6	5105 A 4	5143 C 2	6107 B 3	6182 E 3	9104 E 5	9117 A 6	9129 C 5	9198 A 2
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1152 E 5		2129 B 6	2153 D 4	2179 C 5	3127 A 6	3164 D 4	3194 D 5	5107 A 3	5145 D 3	6121 D 5	7105 B 2	9106 C 5	9119 B 5	9131 E 6	o for AM-version only
1153 E 5		2130 B 5	2160 E 3	2184 D 5	3130 B 6	3165 D 4	3195 D 5	5108 A 2	5146 D 2	6122 D 5	7120 B 4	9107 B 5	9120 B 2	9132 C 3	x for LW-version only
1154 E 4		2131 E 3	2161 D 3	2189 E 3	3132 B 6	3170 C 6	3196 D 4	5109 B 2	5150 D 3	6123 D 6	7127 A 5	9108 D 4	9121 A 2	9133 D 1	y for USA version only
1155 E 2		2134 C 6	2162 D 2	2190 A 2	3141 C 3	3173 B 6	3197 D 5	5120 B 3	5151 C 3	6125 B 5	7156 D 4	9109 E 5	9122 B 4	9134 B 2	z not for all versions



2101 A 2	2122 B 3	2149 D 2	2185 B 3	3109x A 5	3133 A 5	3157 B 2	3180 D 5	3212 C 5	3233 A 4	3248 C 3	7128x A 4	7178 C 6
2102 A 4	2123 B 4	2154 C 3	2186 D 6	3110 C 4	3134 A 5	3158x A 4	3182 C 4	3213 D 5	3234 A 2	6103 A 2	7129 A 5	7179x A 6
2103 C 2	2125x A 6	2155 C 3	2187 D 4	3111 D 3	3135 A 6	3159 C 4	3183 D 5	3214 E 3	3235 C 4	6105 B 4	7140 C 2	7180 D 2
2105 B 3	2126x A 3	2158 D 3	2188 E 4	3113 B 2	3136 E 2	3160 D 4	3184 D 6	3215 E 3	3236 A 2	6109 B 2	7154 D 3	
2107 B 2	2128 A 5	2159 D 3	2192 E 4	3114 B 3	3137 D 2	3161 D 3	3185 B 6	3216 E 4	3237 B 5	6110 B 4	7155 D 3	
2108 A 3	2132 B 4	2163 D 2	2193 C 4	3116x A 3	3138 D 2	3166 E 5	3186 C 4	3221 A 4	3238x A 5	6124 B 3	7167 C 4	
2109 B 4	2133x A 4	2165 E 2	2194 C 5	3117 A 3	3139 D 2	3167 D 5	3187 C 4	3222 A 4	3239 D 6	7100 B 2	7168 C 6	
2110 A 4	2136 B 5	2167 C 3	3100 B 2	3118 A 5	3140 D 2	3168 D 4	3188 C 6	3223x A 3	3240 D 5	7102x A 3	7169 C 6	
2111 B 3	2137 B 5	2168 C 3	3101 B 3	3121 B 4	3142 C 4	3169 D 4	3199 D 4	3224 B 4	3241 A 6	7103 C 4	7170 B 6	
2112 B 4	2138 B 4	2169 C 4	3102 B 3	3122 B 4	3144 C 5	3171 D 6	3200 C 6	3225 B 4	3242 B 5	7104x A 3	7171 B 6	
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2116 B 2	2145x A 4	2180 C 6	3104 B 3	3125x A 5	3147 C 4	3175 B 6	3203 D 3	3228 C 5	3244 A 5	7122 A 5	7173 C 6	
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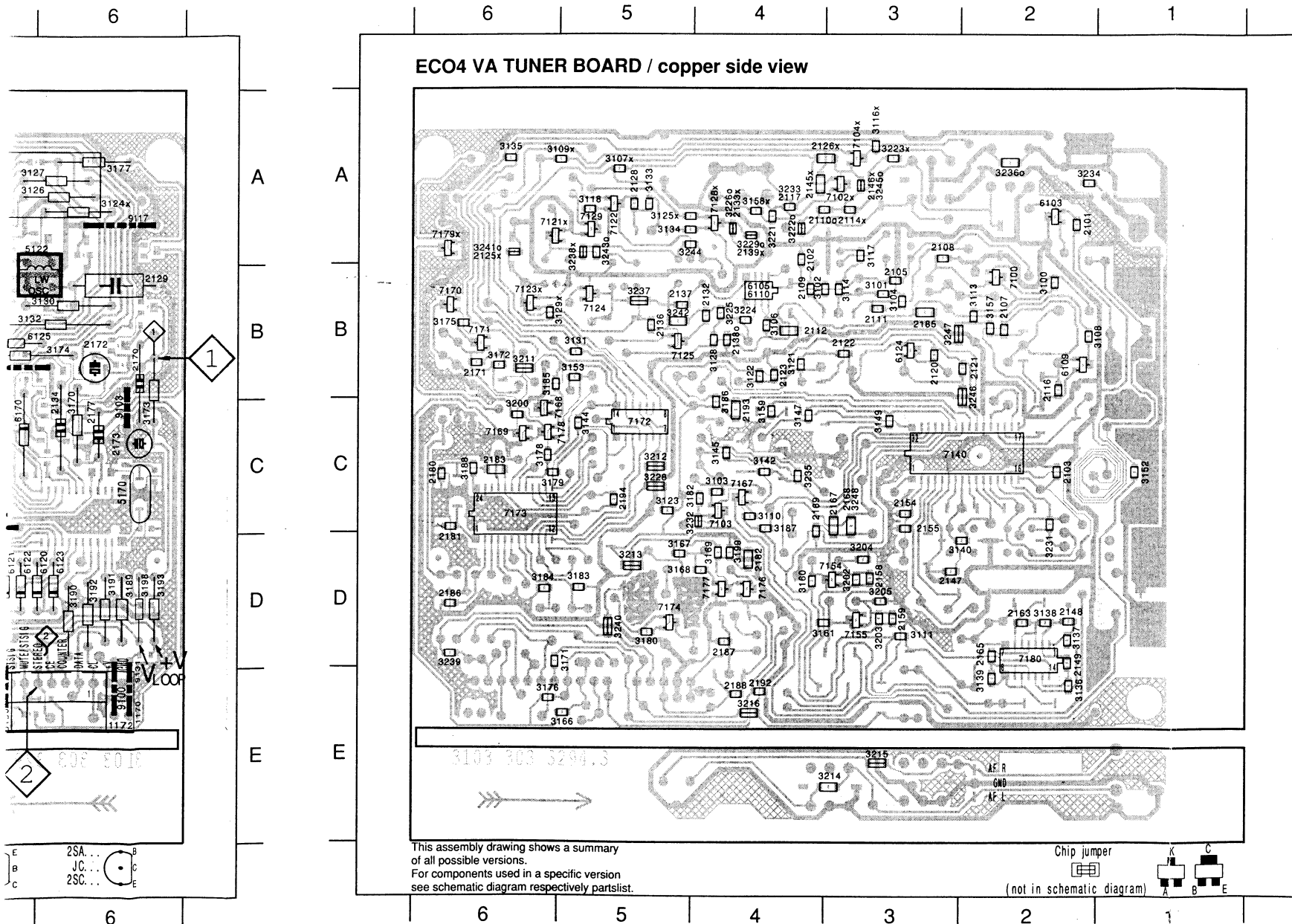
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x for LW-version only
y for USA version only
z not for all versions



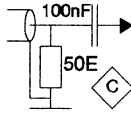
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A 5 9115 C 5 9127 A 2 9191 D 3
C 6 9116 C 5 9128 D 4 9197 C 1
E 5 9117 A 6 9129 C 5 9198 A 2
B 4 9118 A 2 9130 E 5 9199 A 3
C 5 9119 B 5 9131 E 6 o for AM-version only
B 5 9120 B 2 9132 C 3 x for LW-version only
D 4 9121 A 2 9133 D 1 y for USA version only
E 5 9122 B 4 9134 B 2 z not for all versions

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2102 A 4 2123 B 4 2154 C 3 2186 D 6 3110 C 4 3134 A 5 3158x A 4 3182 C 4 3213 D 5 3234 A 2 6103 A 2 7129 A 5 7179x A 6
2103 C 2 2125x A 6 2155 C 3 2187 D 4 3111 D 3 3135 A 6 3159 C 4 3183 D 5 3214 E 3 3235 C 4 6105 B 4 7140 C 2 7180 D 2
2105 B 3 2126x A 3 2158 D 3 2188 E 4 3113 B 2 3136 E 2 3160 D 4 3184 D 6 3215 E 3 3236o A 2 6109 B 2 7154 D 3
2107 B 2 2128 A 5 2159 D 3 2192 E 4 3114 B 3 3137 D 2 3161 D 3 3185 B 6 3216 E 4 3237 B 5 6110 B 4 7155 D 3
2108 A 3 2132 B 4 2163 D 2 2193 C 4 3116x A 3 3138 D 2 3166 E 5 3186 C 4 3221 A 4 3238x A 5 6124 B 3 7167 C 4
2109 B 4 2133x A 4 2165 E 2 2194 C 5 3117 A 3 3139 D 2 3167 D 5 3187 C 4 3222o A 4 3239 D 6 7100 B 2 7168 C 6
2110o A 4 2136 B 5 2167 C 3 3100 B 2 3118 A 5 3140 D 2 3168 D 4 3188 C 6 3223x A 3 3240 D 5 7102x A 3 7169 C 6
2111 B 3 2137 B 5 2168 C 3 3101 B 3 3121 B 4 3142 C 4 3169 D 4 3199 D 4 3224 B 4 3241o A 6 7103 C 4 7170 B 6
2112 B 4 2138o B 4 2169 C 4 3102 B 3 3122 B 4 3144 C 5 3171 D 6 3200 C 6 3225 B 4 3242 B 5 7104x A 3 7171 B 6
2114x A 3 2139x A 4 2171 B 6 3103 C 4 3123 C 5 3145 C 4 3172 B 6 3202 D 3 3226o A 4 3243o A 5 7121x A 6 7172 C 5
2116 B 2 2145x A 4 2180 C 6 3104 B 3 3125x A 5 3147 C 4 3175 B 6 3203 D 3 3228 C 5 3244 A 5 7122 A 5 7173 C 6
2117 A 4 2146x A 3 2181 C 6 3106 B 4 3128 B 4 3149 C 3 3176 E 6 3204 D 3 3229o A 4 3245o A 3 7123x B 6 7174 D 5
2120 B 3 2147 D 3 2182 D 4 3107x A 5 3129x B 6 3152 C 1 3178 C 6 3205 D 3 3231 C 2 3246 B 2 7124 B 5 7176 D 4
2121 B 2 2148 D 2 2183 C 6 3108 B 2 3131 B 5 3153 B 5 3179 C 6 3211 B 6 3232 C 4 3247 B 3 7125 B 5 7177 D 4

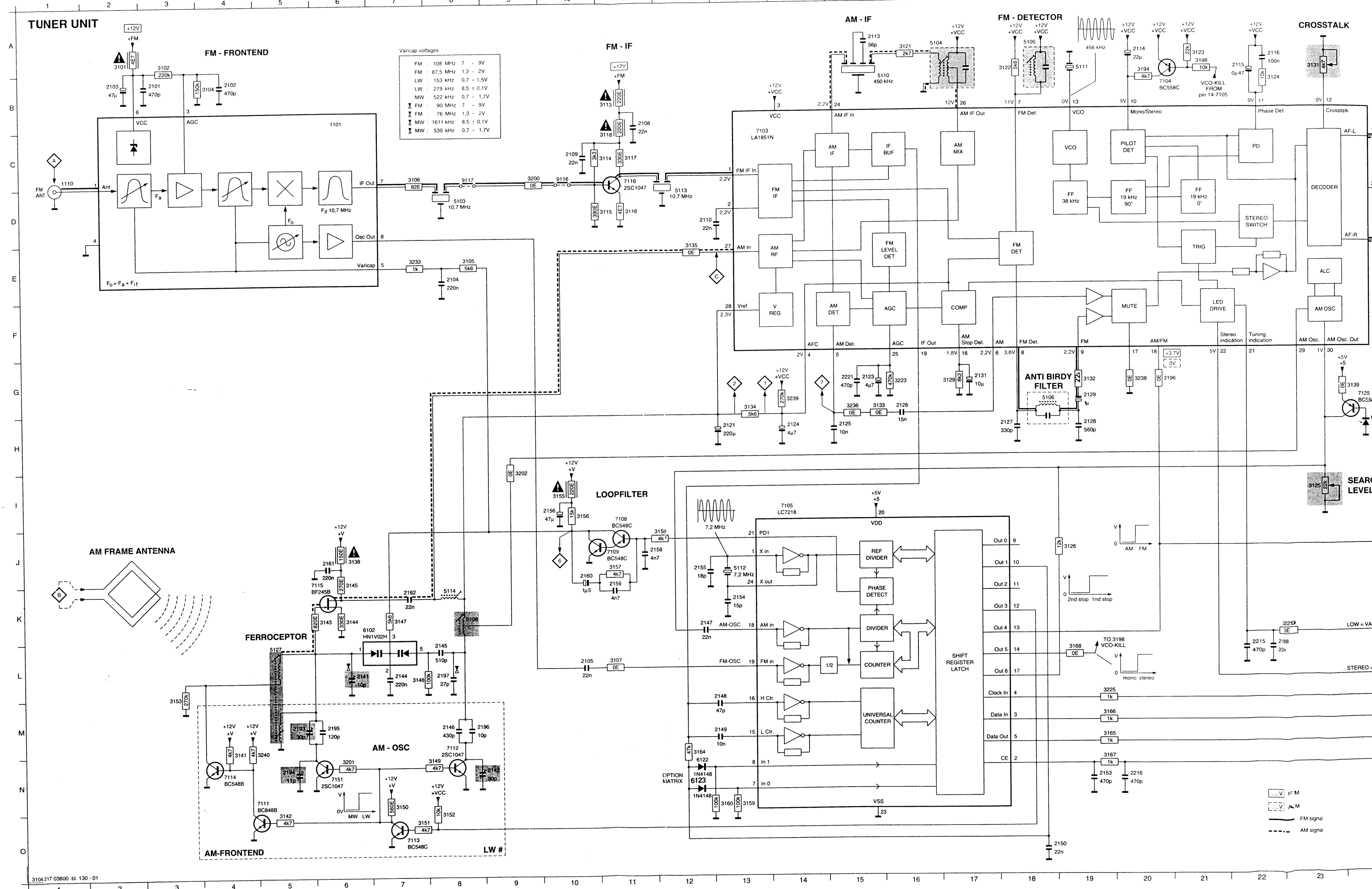
o for AM-version only
x for LW-version only
y for USA version only
z not for all versions

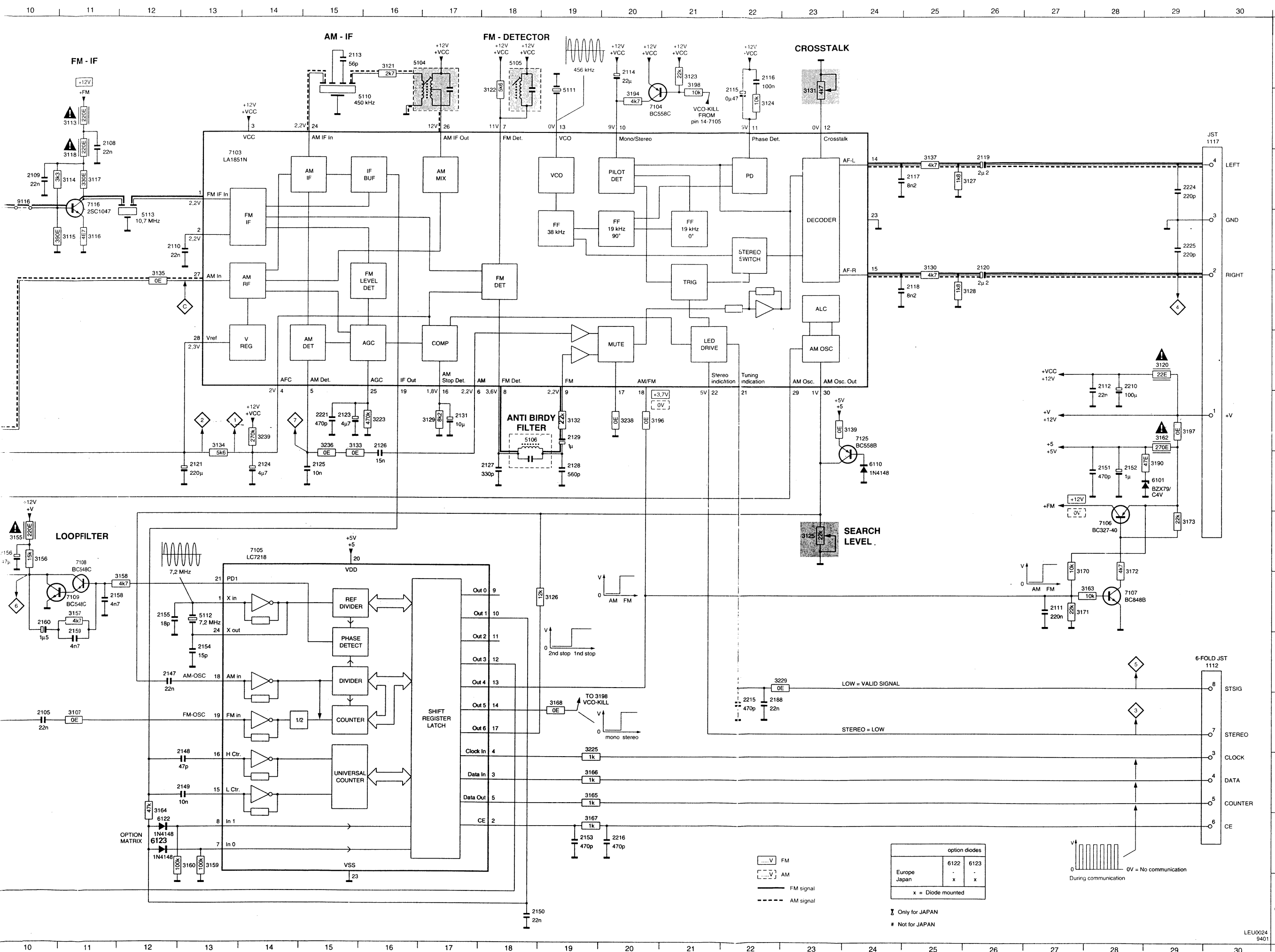


TUNER Adjustment table (ECO4 VA FM/MW- and FM/MW/LW - versions with AM-ferrite antenna)

Waverange	Input frequency	Input	Set tuned to	Adjust	Output	Scope / Voltmeter
VARICAP ALIGNMENT * 1)						
FM 87.5 - 108MHz			108 MHz	5120	1	8V ± 0.2V
			87.5MHz	check		4.1V ± 0.5V
FM /14 East Europe 65.81 - 108MHz			108 MHz	5120		8V ± 0.2V
			65.81 MHz	check		0.8V ± 0.4V
MW 2-band version, 10kHz grid 530 - 1710kHz			1710kHz	5123		9V±0.1V (7.2±1.2V) ¹⁾
			530kHz	check		1V±0.4V (1.1±0.5V) ¹⁾
LW 153 - 279kHz			279kHz	5122		8V±0.2V (7.5±1.5V) ¹⁾
			153kHz	check		1V±0.4V (1.1±0.5V) ¹⁾
MW 3-band version 522 - 1611kHz			1611kHz	5123		8V±0.1V (7.2±1.2V) ¹⁾
			522kHz	check		1V±0.4V (1.1±0.5V) ¹⁾
FM - RF						
FM	108MHz	A	108MHz	2115	3	MAX
	87.5MHz		87.5MHz	5109		
FM /14 East Europe	108MHz	mod=1kHz Δf=22.5kHz	108MHz	2115	3	
	65.81MHz		65.81MHz	5109		
VCO						
FM	98 MHz, 1mV continuous wave	A	98MHz	3148	2	152kHz ± 1kHz
AM - IF						
MW	540kHz Δf = 10kHz as low as possible		540kHz	5142 5140	4	symmetrical and max height
AM - RF						
LW	198kHz	B	198kHz	5122	4	MAX
MW 3-band version	1494kHz		1494kHz	2130		MAX
	549kHz		549kHz	5123		
MW 2-band version, 10kHz grid	1500kHz		1500kHz	2130		
	550kHz		550kHz	5123		

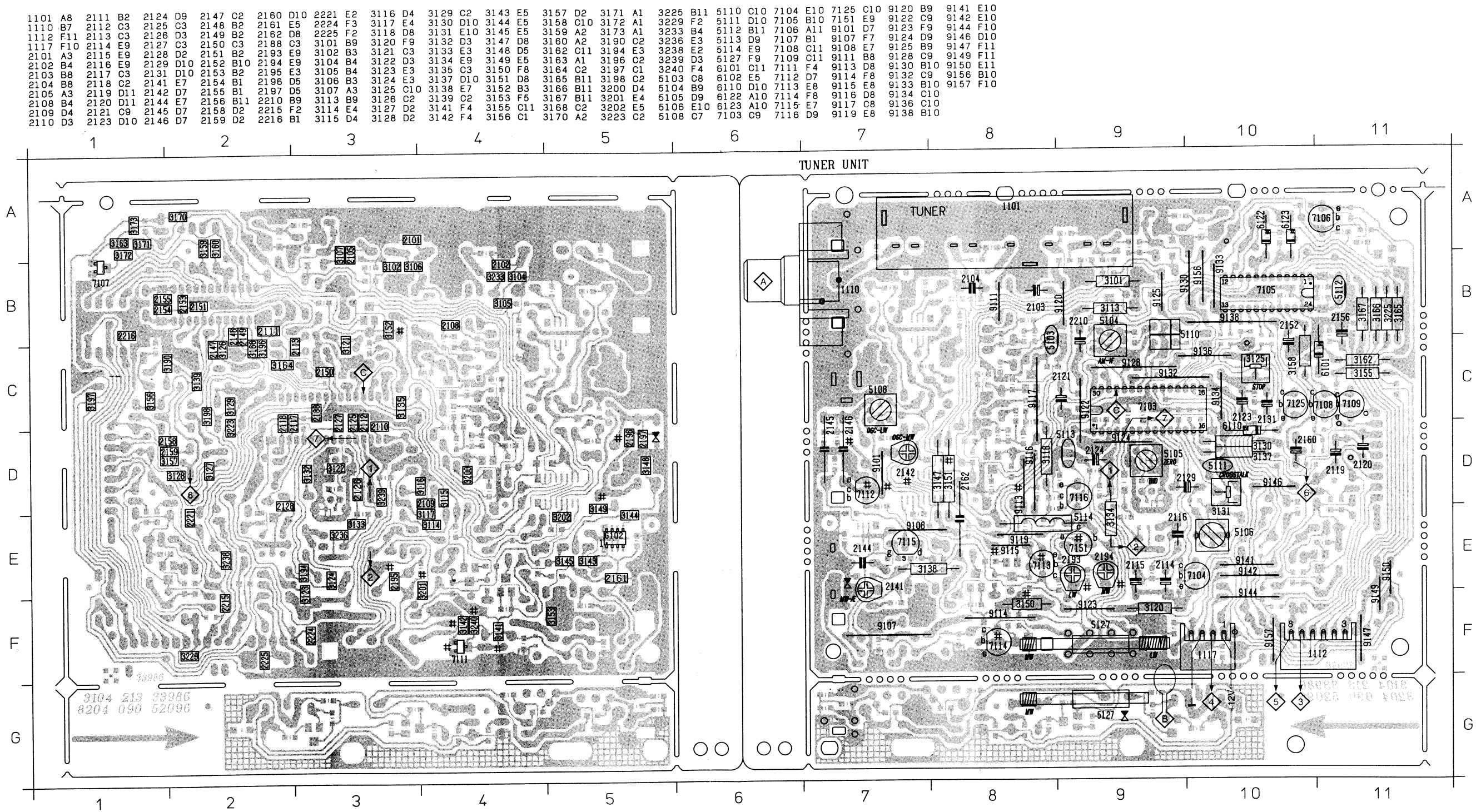
TUNER 92 CIRCUIT (For /22 only)





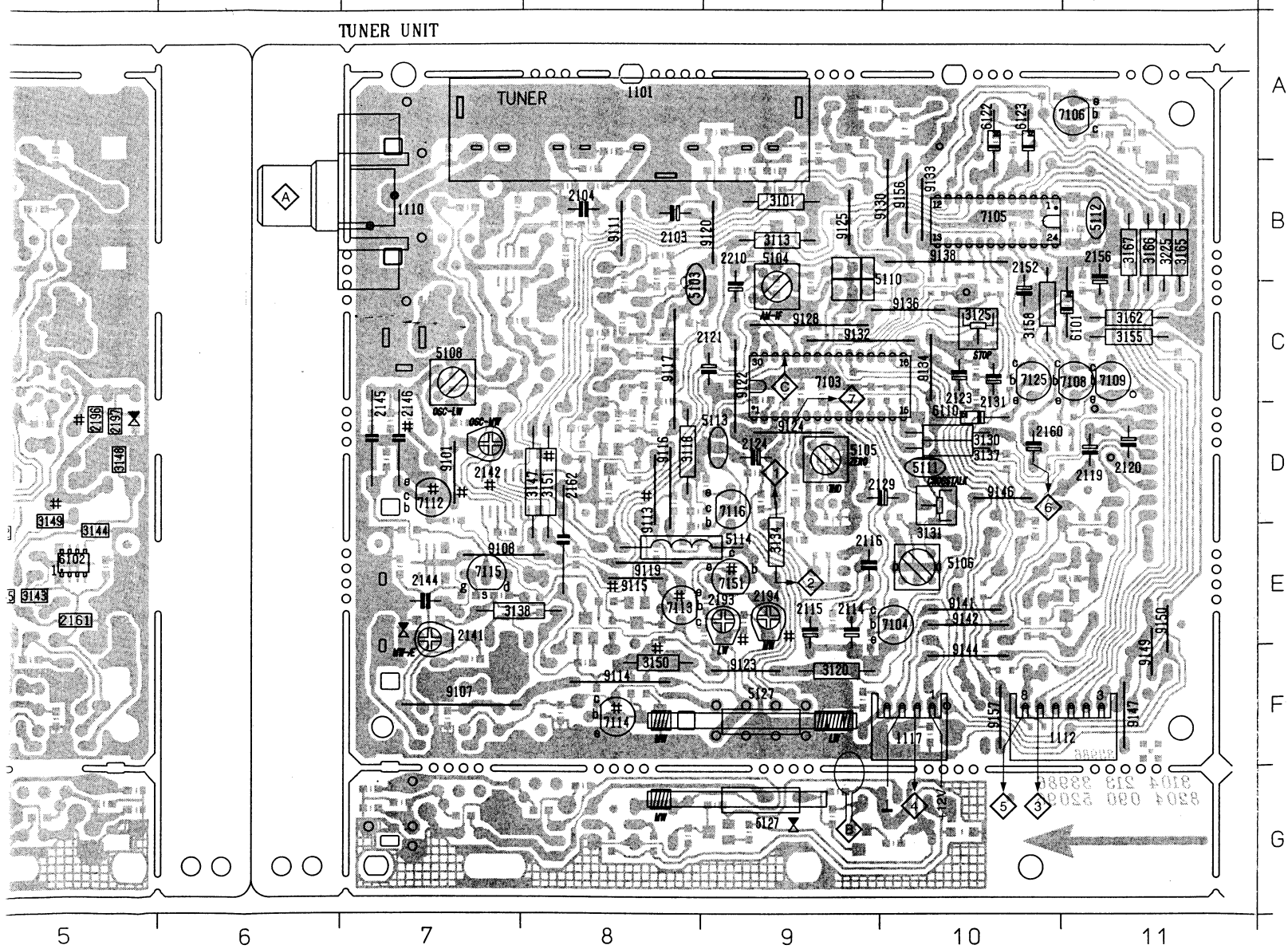
1101	B6	3190	H29
1110	C1	3194	B20
1112	K30	3196	G20
1117	B30	3197	G29
2101	B3	3198	A21
2102	B4	3200	C9
2103	B2	3201	N6
2104	E8	3202	I9
2105	L10	3223	G16
2108	B11	3225	L19
2109	C10	3229	K22
2110	D12	3233	E7
2111	J27	3236	G15
2112	F28	3238	G20
2113	A15	3239	G14
2114	A20	3240	N4
2115	B22	5103	D8
2116	A22	5104	A16
2117	C25	5105	A18
2118	E25	5106	G18
2119	D26	5108	K8
2120	H13	5110	B15
2121	G15	5111	B19
2122	H14	5112	J13
2123	H15	5113	D12
2124	H16	5114	K8
2125	H17	5115	L5
2126	H18	5116	H29
2127	H19	5117	K6
2128	H20	5118	H24
2129	G17	5119	N12
2130	L6	5120	C13
2131	L7	5121	B20
2132	L8	5122	I14
2133	L9	5123	J28
2134	L10	5124	I11
2135	L11	5125	J11
2136	L12	5126	M8
2137	L13	5127	O7
2138	L14	5128	N4
2139	L15	5129	K5
2140	L16	5130	C11
2141	L17	5131	G24
2142	L18	5132	N6
2143	L19	5133	C10
2144	L20	5134	C8
2145	L21	5135	
2146	L22	5136	
2147	L23	5137	
2148	L24	5138	
2149	L25	5139	
2150	L26	5140	
2151	L27	5141	
2152	L28	5142	
2153	L29	5143	
2154	L30	5144	
2155	L31	5145	
2156	L32	5146	
2157	L33	5147	
2158	L34	5148	
2159	L35	5149	
2160	L36	5150	
2161	L37	5151	
2162	L38	5152	
2163	L39	5153	
2164	L40	5154	
2165	L41	5155	
2166	L42	5156	
2167	L43	5157	
2168	L44	5158	
2169	L45	5159	
2170	L46	5160	
2171	L47	5161	
2172	L48	5162	
2173	L49	5163	
2174	L50	5164	
2175	L51	5165	
2176	L52	5166	
2177	L53	5167	
2178	L54	5168	
2179	L55	5169	
2180	L56	5170	
2181	L57	5171	
2182	L58	5172	
2183	L59	5173	
2184	L60	5174	
2185	L61	5175	
2186	L62	5176	
2187	L63	5177	
2188	L64	5178	
2189	L65	5179	
2190	L66	5180	
2191	L67	5181	
2192	L68	5182	
2193	L69	5183	
2194	L70	5184	
2195	L71	5185	
2196	L72	5186	
2197	L73	5187	
2198	L74	5188	
2199	L75	5189	
2200	L76	5190	

TUNER 92 LAYOUT (For /22 only)



D2 3171 A1 3225 B11 5110 C10 7104 E10 7125 C10 9120 B9 9141 E10
C10 3172 A1 3229 F2 5111 D10 7105 B10 7151 E9 9122 C9 9142 E10
A2 3173 A1 3233 B4 5112 B11 7106 A11 9101 D7 9123 F9 9144 F10
A2 3190 C2 3236 E3 5113 D9 7107 B1 9107 F7 9124 D9 9146 D10
C11 3194 E3 3238 E2 5114 E9 7108 C11 9108 E7 9125 B9 9147 F11
A1 3196 C2 3239 D3 5127 F9 7109 C11 9111 B8 9128 C9 9149 F11
C2 3197 C1 3240 F4 6101 C11 7111 F4 9113 D8 9130 B10 9150 E11
B11 3198 C2 5103 C8 6102 E5 7112 D7 9114 F8 9132 C9 9156 B10
B11 3200 D4 5104 B9 6110 D10 7113 E8 9115 E8 9133 B10 9157 F10
B11 3201 E4 5105 D9 6122 A10 7114 F8 9116 D8 9134 C10
C2 3202 E5 5106 E10 6123 A10 7115 E7 9117 C8 9136 C10
A2 3223 C2 5108 C7 7103 C9 7116 D9 9119 E8 9138 B10

5 6 7 8 9 10 11



NOT FOR JAPAN
X ONLY FOR JAPAN

3104-217-03800 . 6

TUNER Adjustment Table (FM,MW,LW with Ferroceptor)

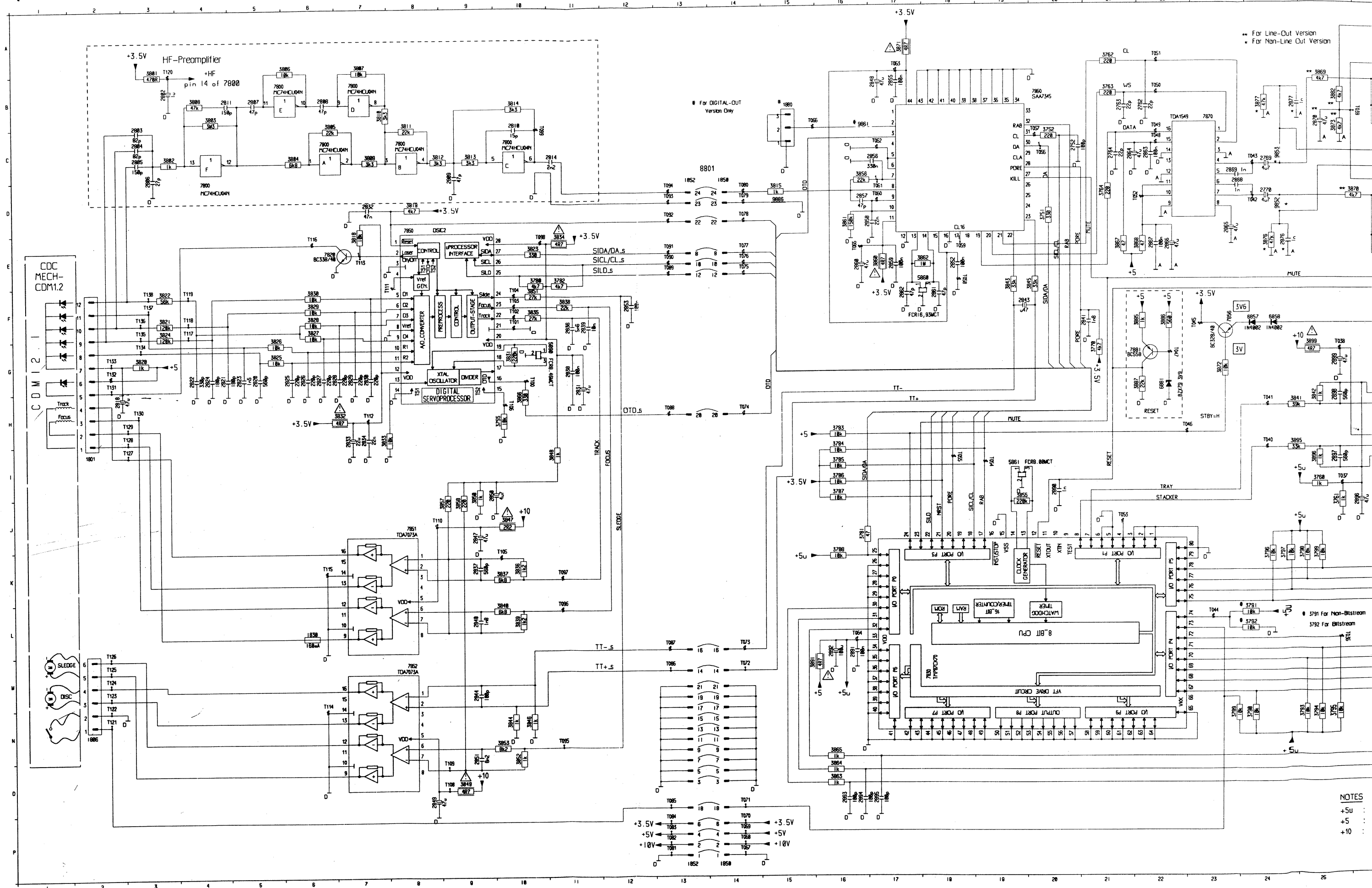
Waverange	Input frequency	Input	Set tuned to	Adjust	Output	Scope / Voltmeter
VARICAP ALIGNMENT						
FM 87.5 - 108MHz (50)			108 MHz	check	6	7.....9V
			87.5MHz	check		1.3.....2V
LW 153 - 279kHz (3)			279kHz	5108		8.5V ± 0.1V
			153kHz	check		0.7.... 1.5V
MW 522 - 1611kHz (9)			1611kHz	2142		8,5V ± 0.1V
			522kHz	check		0.7.....1.7V
FM IF						
FM	98 MHz 1mV mod = 1kHz Δf = 75kHz	A	98MHz	5105	1 2	0V ± 20mV
STEREO CROSSTALK						
FM	98 MHz 1mV 90% L + 9% pilot	A	98MHz	check	3	low < 1V
				3131	4	Right channel min.
SEARCH SENSITIVITY						
FM	98 MHz 12μV mod = 1kHz Δf = 75kHz	A	98MHz Sensitivity low "Level"	3125	5	Switches just from High to Low
AM - IF						
MW	1494kHz Δf = 10kHz low as posible swept signal		1494kHz	5104	7	symmetrical and max height
AM - RF						
LW	155kHz mod = 1kHz 30 % AM 270kHz	B *	155kHz	5127 LW	7	MAX 
			270kHz	2193		
MW	558kHz mod = 1kHz 30 % AM 1494kHz		558kHz	5127 MW		MAX 
			1494kHz	2194		

* Signal send via a frame antenna
(..) = tuning grid in kHz

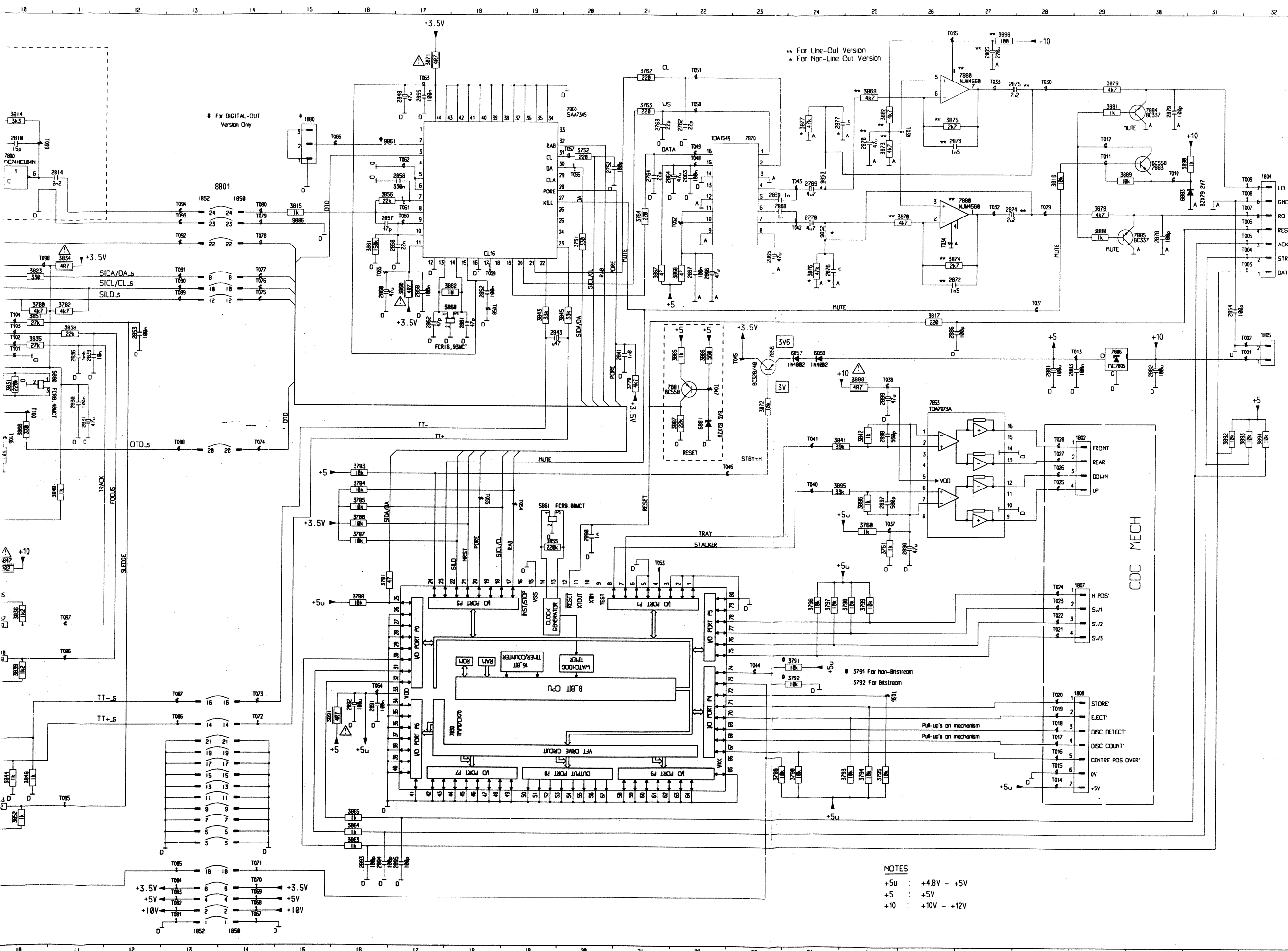
↑
↓
repeat

LEU0049
9412

CD CIRCUIT (BITSTREAM)



NOTES
+5U :
+5 :
+10 :

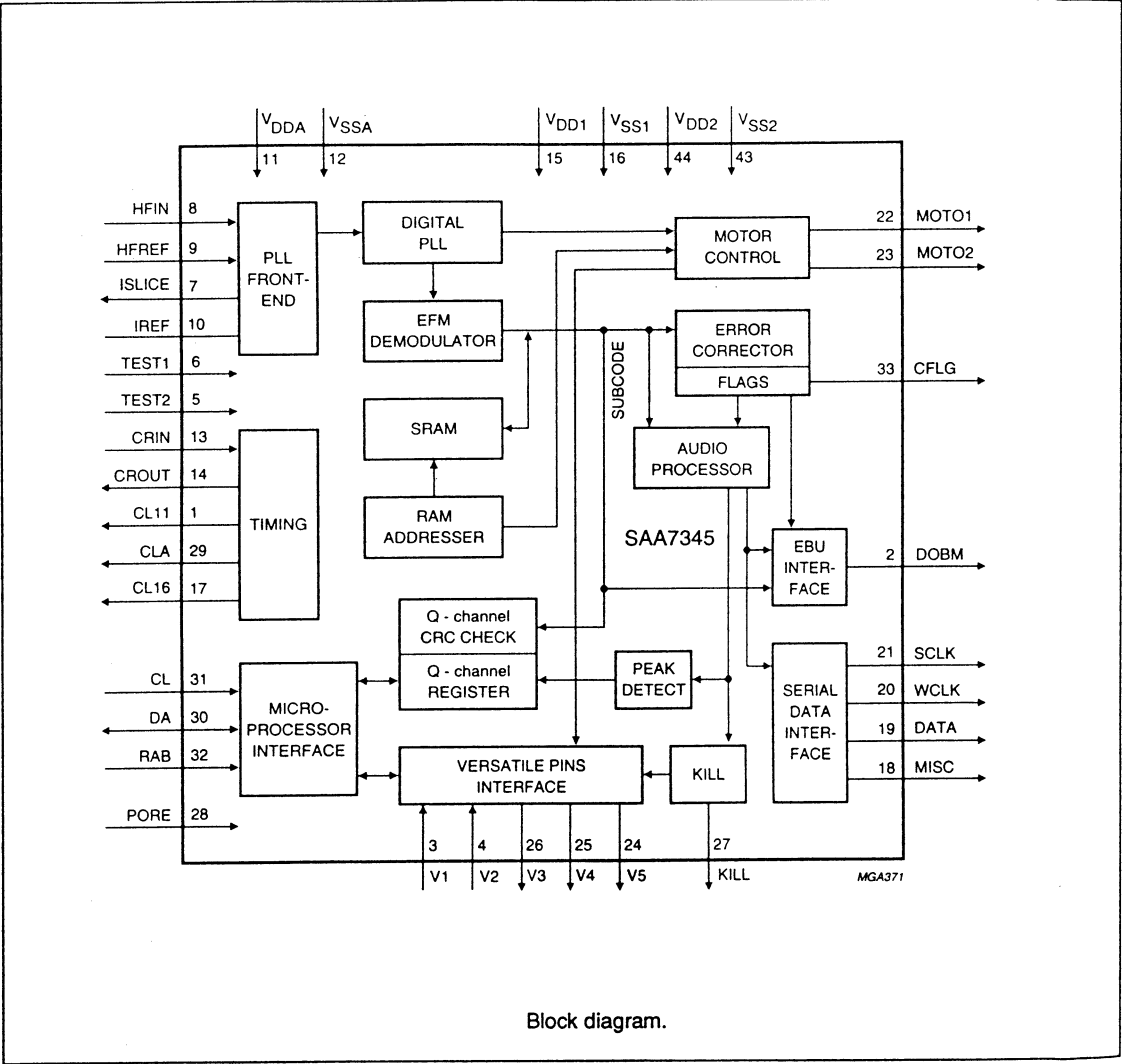


	1881	1	2	3846	W10
	1882	129	2	3847	J10
	1884	332	2	3848	Q10
	1885	352	2	3849	Q10
	1886	N	2	3850	J
	1887	353	3	3851	F10
	1888	354	3	3852	F10
	1889	355	3	3853	F10
	1890	356	4	3854	F10
	1891	357	4	3855	F10
	1892	358	4	3856	F10
	1893	359	4	3857	F10
	1894	360	4	3858	F10
	1895	361	4	3859	F10
	1896	362	4	3860	F10
	1897	363	4	3861	F10
	1898	364	4	3862	F10
	1899	365	4	3863	F10
	1900	366	4	3864	F10
	1901	367	4	3865	F10
	1902	368	4	3866	F10
	1903	369	4	3867	F10
	1904	370	4	3868	F10
	1905	371	4	3869	F10
	1906	372	4	3870	F10
	1907	373	4	3871	F10
	1908	374	4	3872	F10
	1909	375	4	3873	F10
	1910	376	4	3874	F10
	1911	377	4	3875	F10
	1912	378	4	3876	F10
	1913	379	4	3877	F10
	1914	380	4	3878	F10
	1915	381	4	3879	F10
	1916	382	4	3880	F10
	1917	383	4	3881	F10
	1918	384	4	3882	F10
	1919	385	4	3883	F10
	1920	386	4	3884	F10
	1921	387	4	3885	F10
	1922	388	4	3886	F10
	1923	389	4	3887	F10
	1924	390	4	3888	F10
	1925	391	4	3889	F10
	1926	392	4	3890	F10
	1927	393	4	3891	F10
	1928	394	4	3892	F10
	1929	395	4	3893	F10
	1930	396	4	3894	F10
	1931	397	4	3895	F10
	1932	398	4	3896	F10
	1933	399	4	3897	F10
	1934	400	4	3898	F10
	1935	401	4	3899	F10
	1936	402	4	3900	F10
	1937	403	4	3901	F10
	1938	404	4	3902	F10
	1939	405	4	3903	F10
	1940	406	4	3904	F10
	1941	407	4	3905	F10
	1942	408	4	3906	F10
	1943	409	4	3907	F10
	1944	410	4	3908	F10
	1945	411	4	3909	F10
	1946	412	4	3910	F10
	1947	413	4	3911	F10
	1948	414	4	3912	F10
	1949	415	4	3913	F10
	1950	416	4	3914	F10
	1951	417	4	3915	F10
	1952	418	4	3916	F10
	1953	419	4	3917	F10
	1954	420	4	3918	F10
	1955	421	4	3919	F10
	1956	422	4	3920	F10
	1957	423	4	3921	F10
	1958	424	4	3922	F10
	1959	425	4	3923	F10
	1960	426	4	3924	F10
	1961	427	4	3925	F10
	1962	428	4	3926	F10
	1963	429	4	3927	F10
	1964	430	4	3928	F10
	1965	431	4	3929	F10
	1966	432	4	3930	F10
	1967	433	4	3931	F10
	1968	434	4	3932	F10
	1969	435	4	3933	F10
	1970	436	4	3934	F10
	1971	437	4	3935	F10
	1972	438	4	3936	F10
	1973	439	4	3937	F10
	1974	440	4	3938	F10
	1975	441	4	3939	F10
	1976	442	4	3940	F10
	1977	443	4	3941	F10
	1978	444	4	3942	F10
	1979	445	4	3943	F10
	1980	446	4	3944	F10
	1981	447	4	3945	F10
	1982	448	4	3946	F10
	1983	449	4	3947	F10
	1984	450	4	3948	F10
	1985	451	4	3949	F10
	1986	452	4	3950	F10
	1987	453	4	3951	F10
	1988	454	4	3952	F10
	1989	455	4	3953	F10
	1990	456	4	3954	F10
	1991	457	4	3955	F10
	1992	458	4	3956	F10
	1993	459	4	3957	F10
	1994	460	4	3958	F10
	1995	461	4	3959	F10
	1996	462	4	3960	F10
	1997	463	4	3961	F10
	1998	464	4	3962	F10
	1999	465	4	3963	F10
	2000	466	4	3964	F10
	2001	467	4	3965	F10
	2002	468	4	3966	F10
	2003	469	4	3967	F10
	2004	470	4	3968	F10
	2005	471	4	3969	F10
	2006	472	4	3970	F10
	2007	473	4	3971	F10
	2008	474	4	3972	F10
	2009	475	4	3973	F10
	2010	476	4	3974	F10
	2011	477	4	3975	F10
	2012	478	4	3976	F10
	2013	479	4	3977	F10
	2014	480	4	3978	F10
	2015	481	4	3979	F10
	2016	482	4	3980	F10
	2017	483	4	3981	F10
	2018	484	4	3982	F10
	2019	485	4	3983	F10
	2020	486	4	3984	F10
	2021	487	4	3985	F10
	2022	488	4	3986	F10
	2023	489	4	3987	F10
	2024	490	4	3988	F10
	2025	491	4	3989	F10
	2026	492	4	3990	F10
	2027	493	4	3991	F10
	2028	494	4	3992	F10
	2029	495	4	3993	F10
	2030	496	4	3994	F10
	2031	497	4	3995	F10
	2032	498	4	3996	F10
	2033	499	4	3997	F10
	2034	500	4	3998	F10
	2035	501	4	3999	F10
	2036	502	4	4000	F10
	2037	503	4	4001	F10
	2038	504	4	4002	F10
	2039	505	4	4003	F10
	2040	506	4	4004	F10
	2041	507	4	4005	F10
	2042	508	4	4006	F10
	2043	509	4	4007	F10
	2044	510	4	4008	F10
	2045	511	4	4009	F10
	2046	512	4	4010	F10
	2047	513	4	4011	F10
	2048	514	4	4012	F10
	2049	515	4	4013	F10
	2050	516	4	4014	F10
	2051	517	4	4015	F10
	2052	518	4	4016	F10
	2053	519	4	4017	F10
	2054	520	4	4018	F10
	2055	521	4	4019	F10
	2056	522	4	4020	F10
	2057	523	4	4021	F10
	2058	524	4	4022	F10
	2059	525	4	4023	F10
	2060	526	4	4024	F10
	2061	527	4	4025	F10
	2062	528	4	4026	F10
	2063	529	4	4027	F10
	2064	530	4	4028	F10
	2065	531	4	4029	F10
	2066	532	4	4030	F10
	2067	533	4	4031	F10
	2068	534	4	4032	F10
	2069	535	4	4033	F10
	2070	536	4	4034	F10
	2071	537	4	4035	F10
	2072	538	4	4036	F10
	2073	539	4	4037	F10
	2074	540	4	4038	F10
	2075	541	4	4039	F10
	2076	542	4	4040	F10
	2077	543	4	4041	F10
	2078	544	4	4042	F10
	2079	545	4	4043	F10
	2080	546	4	4044	F10
	2081	547	4	4045	F10
	2082	548	4	4046	F10
	2083	549	4	4047	F10
	2084	550	4	4048	F10
	2085	551	4	4049	F10
	2086	552	4	4050	F10
	2087	553	4	4051	F10
	2088	554	4	4052	F10
	2089	555	4	4053	F10
	2090	556	4	4054	F10
	2091	557	4	4055	F10
	2092	558	4	4056	F10
	2093	559	4	4057	F10
	2094	560	4	4058	F10
	2095	561	4	4059	F10
	2096	562	4	4060	F10
	2097	563	4	4061	F10
	2098	564	4	4062	F10
	2099	565	4	4063	F10
	2100	566	4	4064	F10
	2101	567	4	4065	F10
	2102	568	4	4066	F10
	2103	569	4	4067	F10
	2104	570	4	4068	F10
	2105	571	4	4069	F10
	2106	572	4	4070	F10
	2107	573	4	4071	F10
	2108	574	4	4072	F10
	2109	575	4	4073	F10
	2110	576	4	4074	F10
	2111	577	4	4075	F10
	2112	578	4	4076	F10
	2113	579	4	4077	F10
	2114	580	4	4078	F10
	2115	581	4	4079	F10
	2116	582	4	4080	F10
	2117	583	4	4081	F10
	2118	584	4	4082	F10
	2119	585	4	4083	F10
	2120	586	4	4084	F10
	2121	587	4	4085	F10
	2122	588	4	4086	F10
	2123	589	4	4087	F10
	2124	590	4	4088	F10
	2125	591	4	4089	F10
	2126	592	4	4090	F10
	2127	593	4	4091	F10
	2128	594	4	4092	F10
	2129	595	4	4093	F10
	2130	596	4	4094	F10
	2131	597	4	4095	F10
	2132	598	4	4096	F10
	2133	599	4	4097	F10
	2134	600	4	4098	F10
	2135	601	4	4099	F10
	2136	602	4	4100	F10
	2137	603	4	4101	F10
	2138	604	4	4102	F10
	2139	605	4	4103	F10
	2140	606	4	4104	F10
	2141	607	4	4105	F10
	2142	608	4	4106	F10
	2143	609	4	4107	F10
	2144	610	4	4108	F10
	2145	611			

NOTES

+5u	:	+4.8V - +5V
+5	:	+5V
+10	:	+10V - +12V

IC 7860 (SAA 7345)

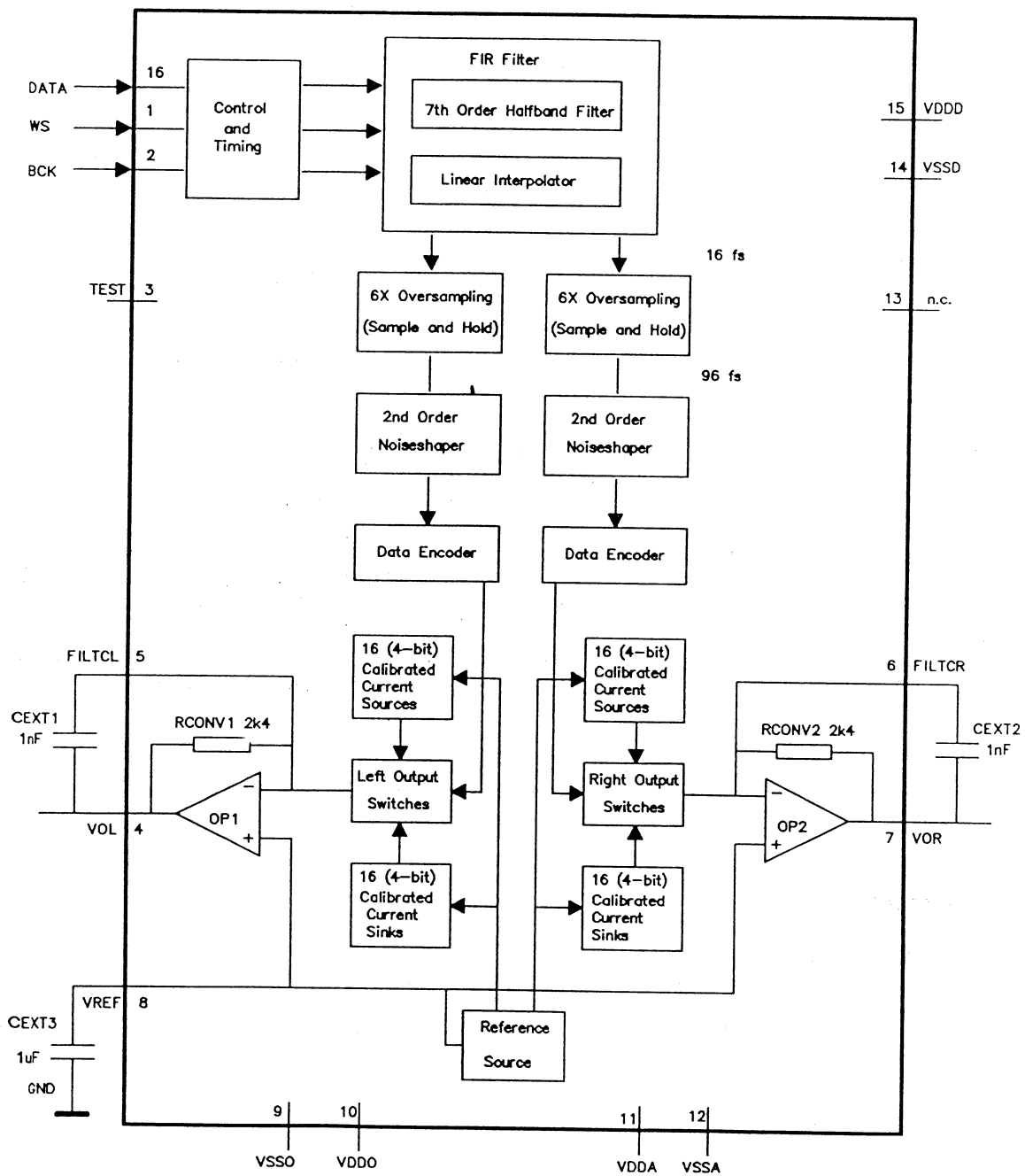


Block diagram.

PINNING OF SAA7345

SYMBOL	PIN	DESCRIPTION	SYMBOL	PIN	DESCRIPTION
CL11	1	11.2896 MHz clock output (3-state)	DATA	19	serial data output (3-state)
DBOM	2	bi-phase mark output (externally buffered; 3-state)	WCLK	20	word clock output (3-state)
V1	3	versatile input pin	SCLK	21	serial bit clock (3-state)
V2	4	versatile input pin	MOTO1	22	motor output 1; versatile (3-state)
TEST2	5	test input; this pin should be tied LOW	MOTO2	23	motor output 2; versatile (3-state)
TEST1	6	test input; this pin should be tied LOW	V5	24	versatile output pin
ISLICE	7	current feedback from data slicer	V4	25	versatile output pin
HFIN	8	comparator signal input	V3	26	versatile output pin (open-drain)
HFREF	9	comparator common-mode input	KILL	27	kill output; programmable (open-drain)
IREF	10	reference current pin (nominally $V_{DD}/2$)	PORE	28	power-on reset enable input (active LOW)
V_{DDA}	11	analog supply	CLA	29	4.2336MHz microprocessor clock output
V_{SSA}	12	analog supply	RAB	32	interface $R/\bar{W}$ and acknowledge input
CRIN	13	crystal/resonator input	CFLG	33	correction flag output (open-drain)
CROUT	14	crystal/resonator output		34-42	no internal connection
V_{DD1}	15	digital supply	V_{SS2}	43	digital supply
V_{SS1}	16	digital supply	V_{DD2}	44	digital supply
CL16	17	16.9344MHz system clock output			
MISC	18	general purpose DAC output (3-state)			

IC 7870 (TDA 1549)



Block diagram

module-cdc.bccpanel-p2-940421-1

3139 113 32832

CDC7.BCC

CDC7.BCC

3139 113 32832

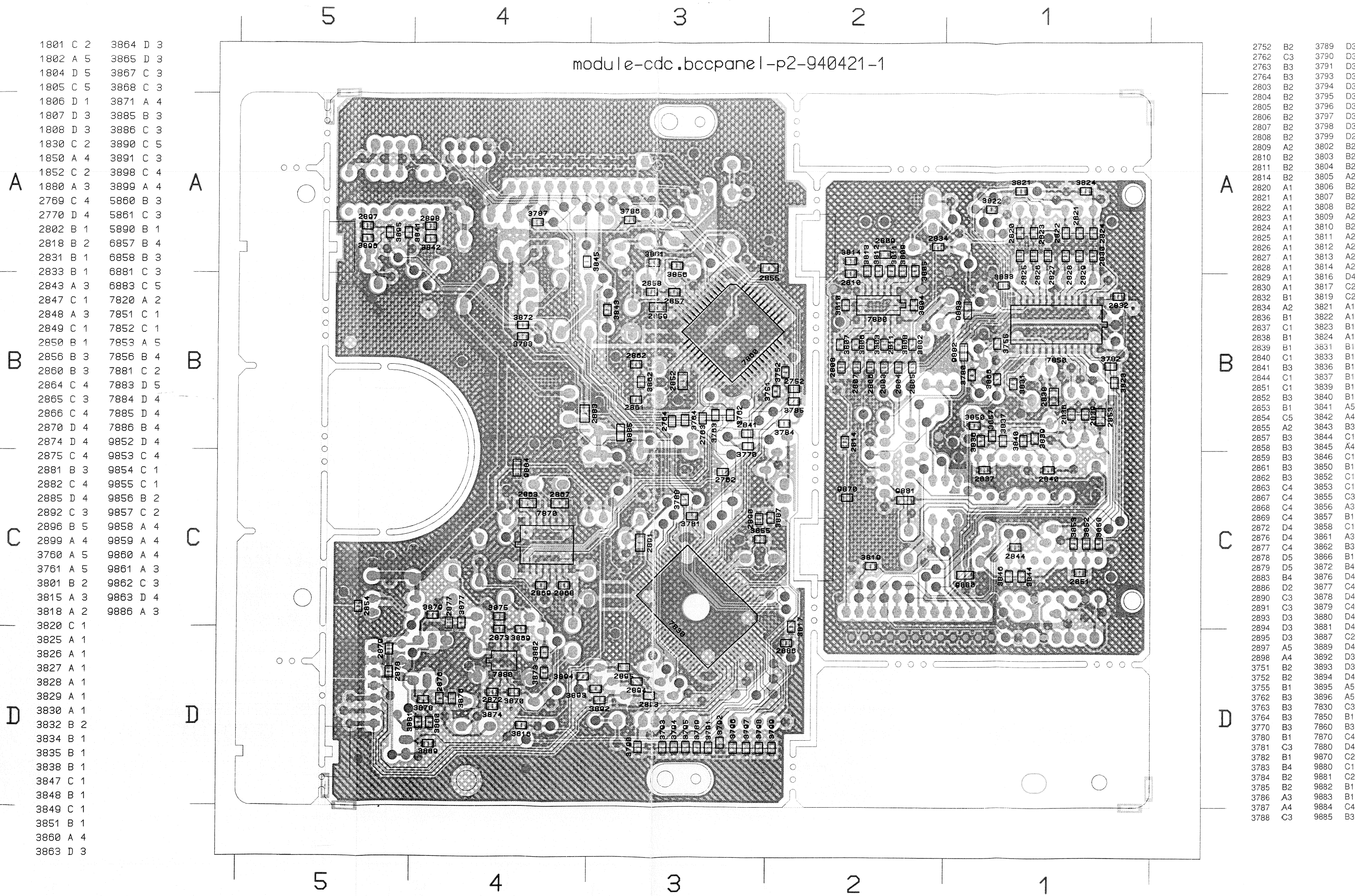
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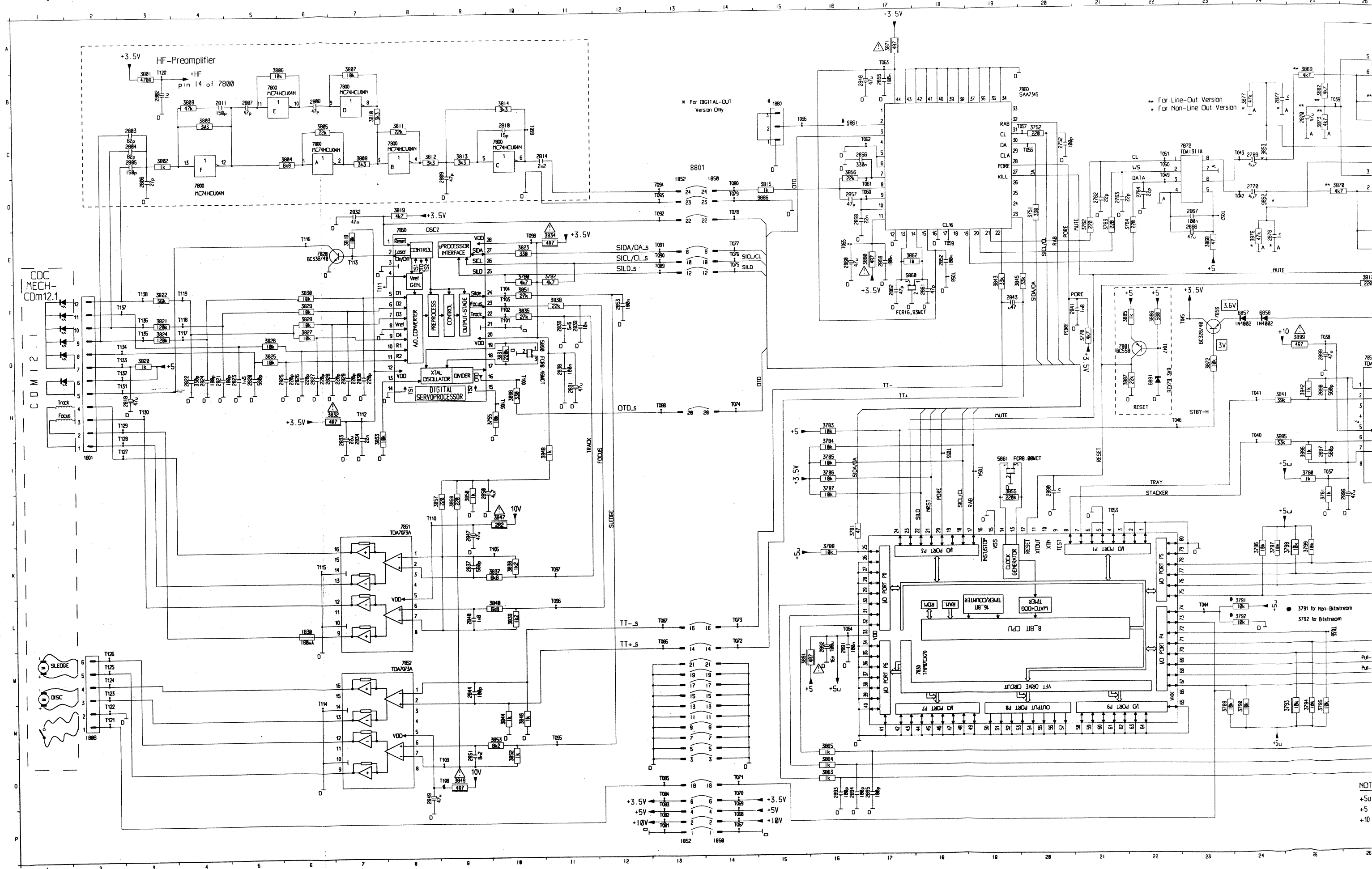
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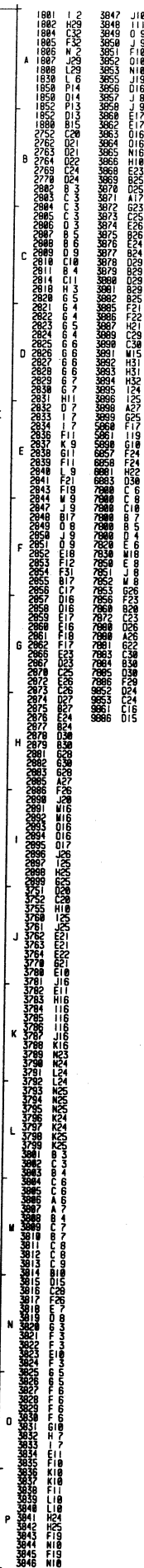
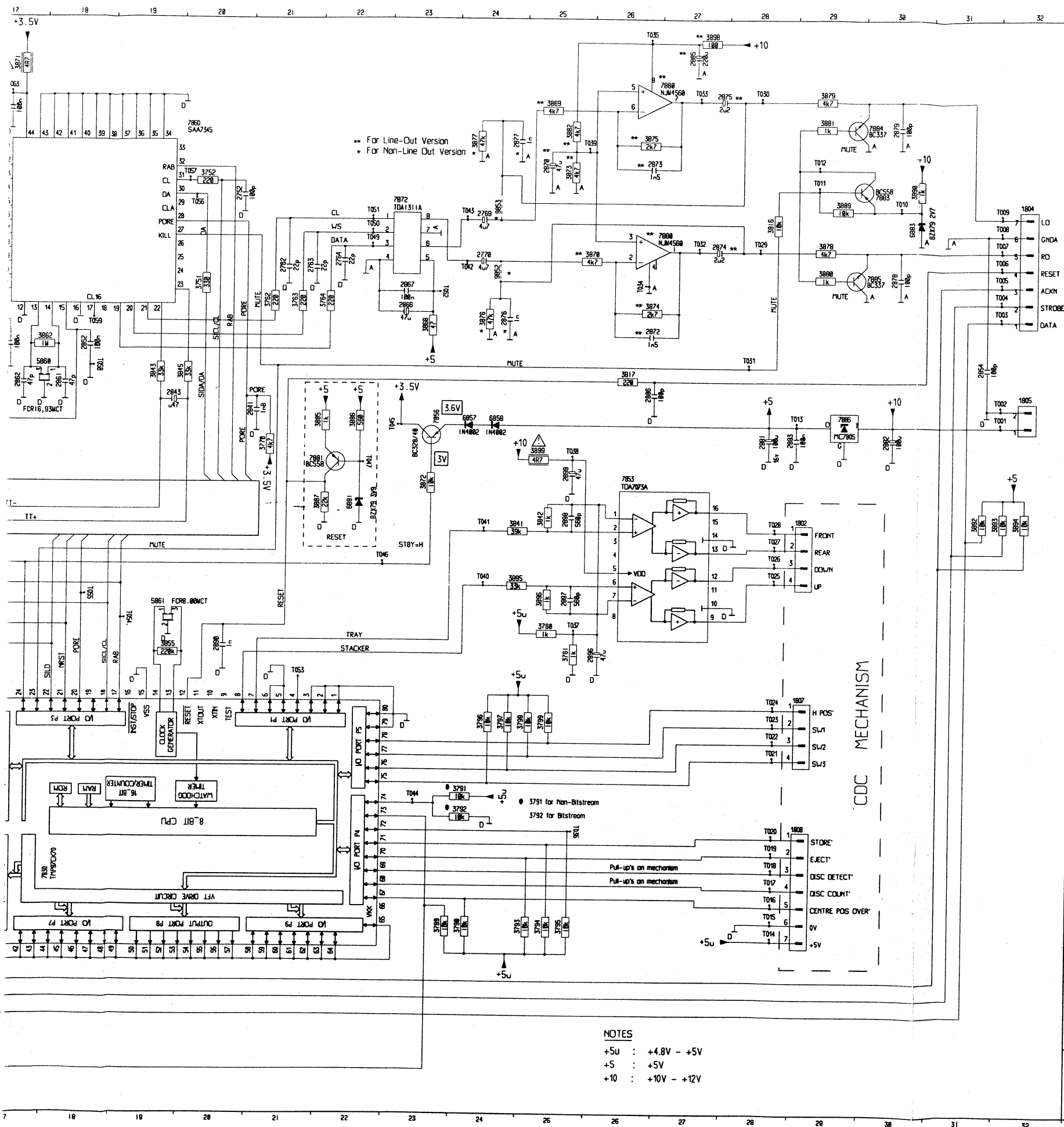
3139 113 32832

1801	C	2	3864	D	3
1802	A	5	3865	D	3
1804	D	5	3867	C	3
1805	C	5	3868	C	3
1806	D	1	3871	A	4
1807	D	3	3885	B	3
1808	D	3	3886	C	3
1830	C	2	3890	C	5
1850	A	4	3891	C	3
1852	C	2	3898	C	4
1880	A	3	3899	A	4
2769	C	4	5860	B	3
2770	D	4	5861	C	3
2802	B	1	5890	B	1
2818	B	2	6857	B	4
2831	B	1	6858	B	3
2833	B	1	6881	C	3
2843	A	3	6883	C	5
2847	C	1	7820	A	2
2848	A	3	7851	C	1
2849	C	1	7852	C	1
2850	B	1	7853	A	5
2856	B	3	7856	B	4
2860	B	3	7881	C	2
2864	C	4	7883	D	5
2865	C	3	7884	D	4
2866	C	4	7885	D	4
2870	D	4	7886	B	4
2874	D	4	9852	D	4
2875	C	4	9853	C	4
2881	B	3	9854	C	1
2882	C	4	9855	C	1
2885	D	4	9856	B	2
2892	C	3	9857	C	2
2896	B	5	9858	A	4
2899	A	4	9859	A	4
3760	A	5	9860	A	4
3761	A	5	9861	A	3
3801	B	2	9862	C	3
3815	A	3	9863	D	4
3818	A	2	9886	A	3
3820	C	1			
3825	A	1			
3826	A	1			
3827	A	1			
3828	A	1			
3829	A	1			
3830	A	1			
3832	B	2			
3834	B	1			
3835	B	1			
3838	B	1			
3847	C	1			
3848	B	1			
3849	C	1			
3851	B	1			
3860	A	4			
3863	D	3			

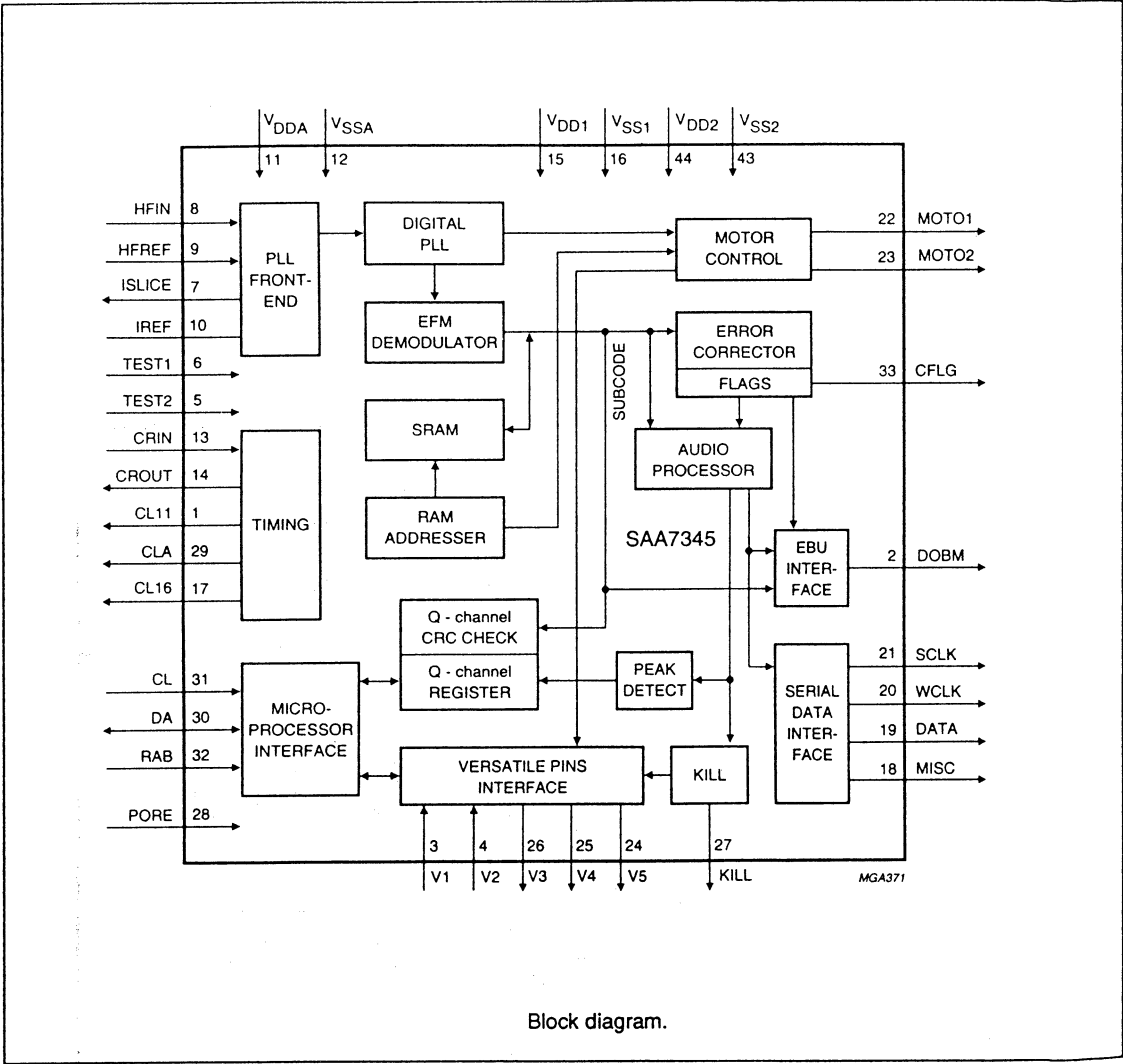


CD CIRCUIT (NON-BITSTREAM)



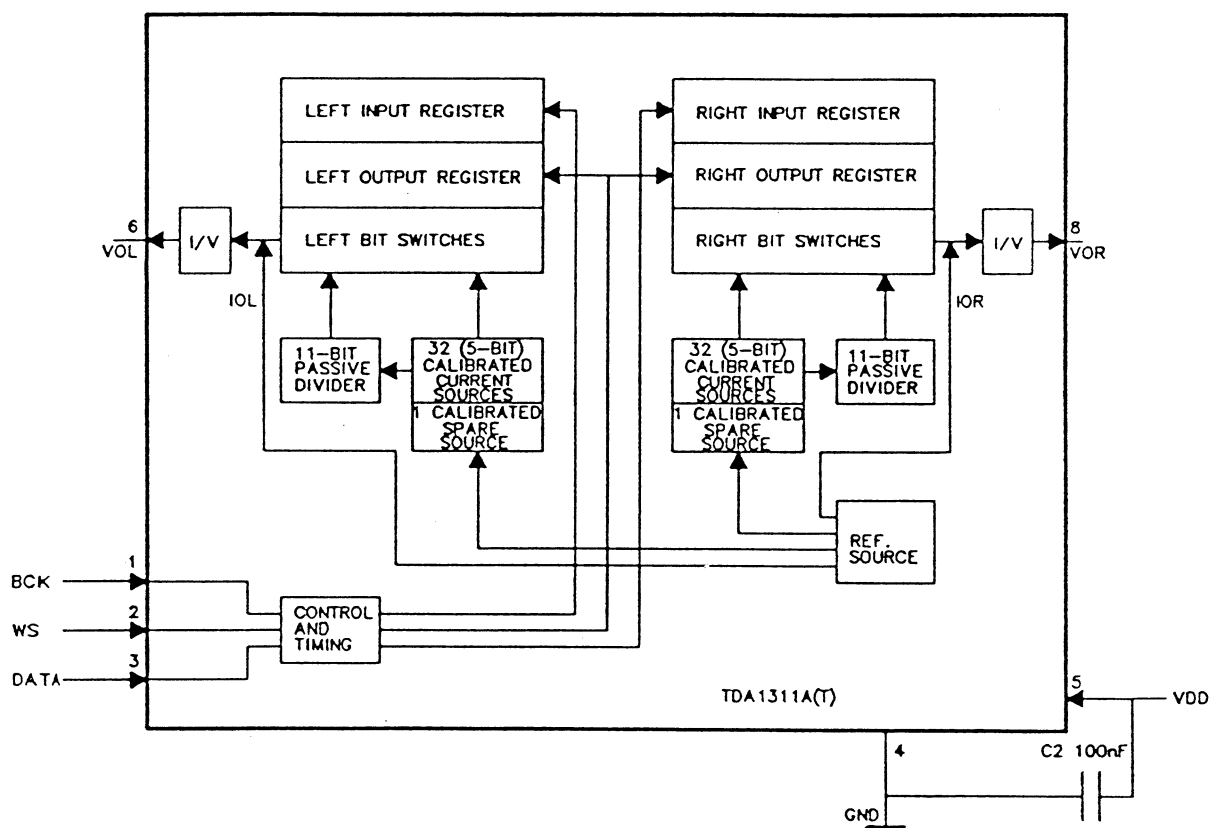


IC 7860 (SAA 7345)



PINNING OF SAA7345

SYMBOL	PIN	DESCRIPTION	SYMBOL	PIN	DESCRIPTION
CL11	1	11.2896 MHz clock output (3-state)	DATA	19	serial data output (3-state)
DBOM	2	bi-phase mark output (externally buffered; 3-state)	WCLK	20	word clock output (3-state)
V1	3	versatile input pin	SCLK	21	serial bit clock (3-state)
V2	4	versatile input pin	MOTO1	22	motor output 1; versatile (3-state)
TEST2	5	test input; this pin should be tied LOW	MOTO2	23	motor output 2; versatile (3-state)
TEST1	6	test input; this pin should be tied LOW	V5	24	versatile output pin
ISLICE	7	current feedback from data slicer	V4'	25	versatile output pin
HFIN	8	comparator signal input	V3	26	versatile output pin (open-drain)
HFREF	9	comparator common-mode input	KILL	27	kill output; programmable (open-drain)
IREF	10	reference current pin (nominally $V_{DD}/2$)	PORE	28	power-on reset enable input (active LOW)
V_{DDA}	11	analog supply	CLA	29	4.2336MHz microprocessor clock output
V_{SSA}	12	analog supply	RAB	32	interface $R/\overline{W}$ and acknowledge input
CRIN	13	crystal/resonator input	CFLG	33	correction flag output (open-drain)
CROUT	14	crystal/resonator output	34-42		no internal connection
V_{DD1}	15	digital supply	V_{SS2}	43	digital supply
V_{SS1}	16	digital supply	V_{DD2}	44	digital supply
CL16	17	16.9344MHz system clock output			
MISC	18	general purpose DAC output (3-state)			



Block diagram

module-cdc.ccpanel-p2-940422-1

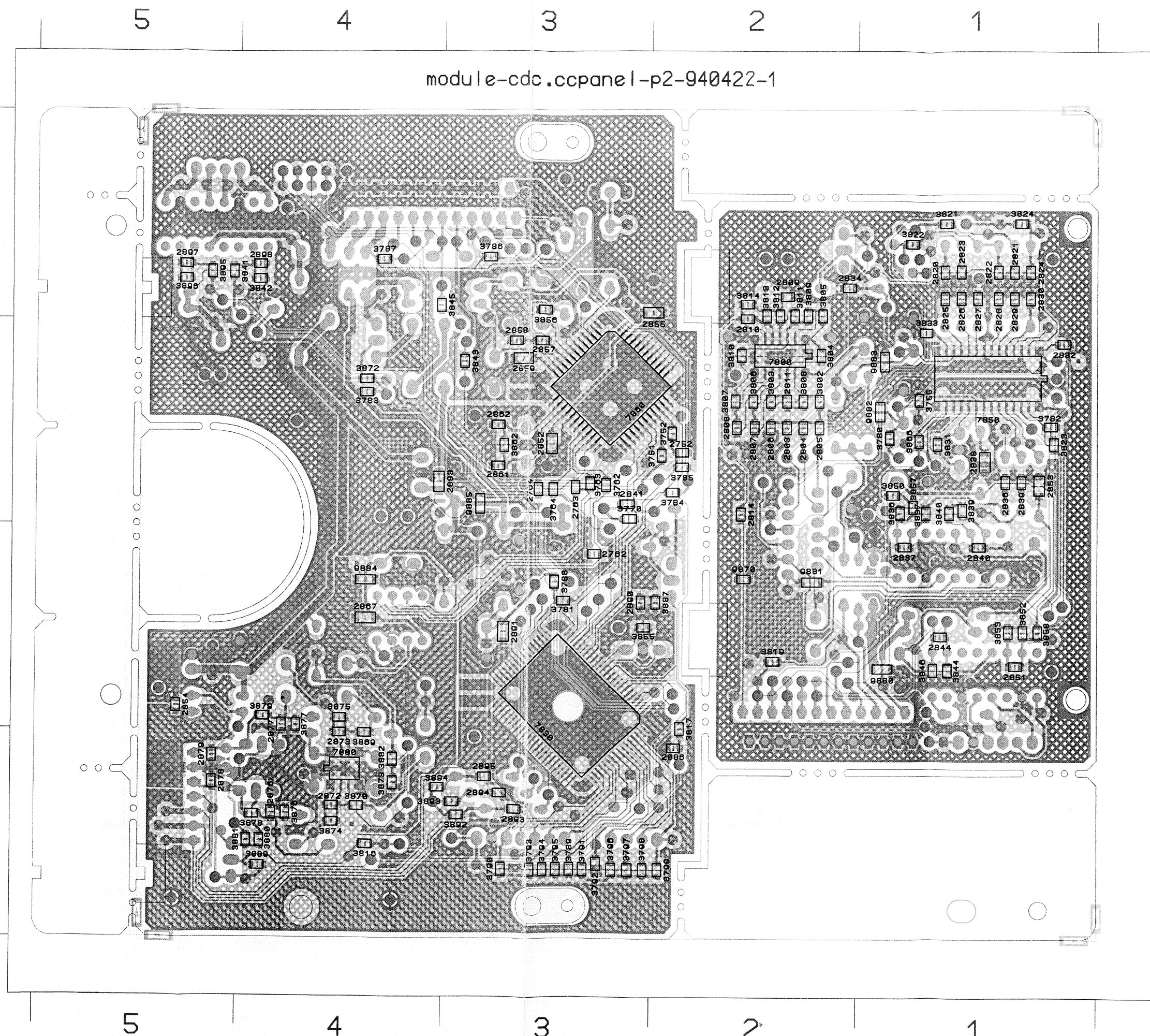
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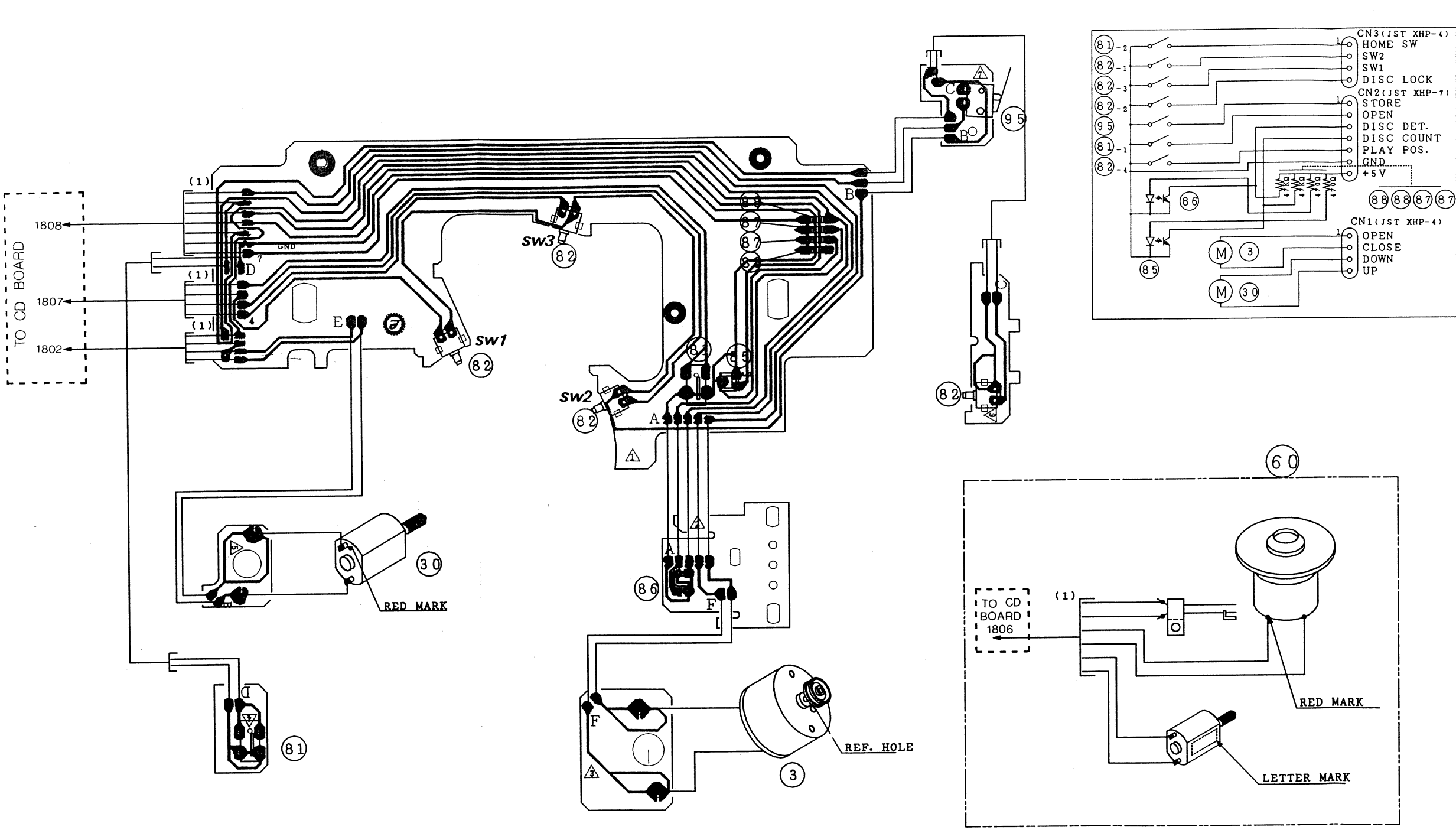
CDC7.CC

1801	C 2	3868	C 3
1802	A 5	3871	A 4
1804	D 5	3885	B 3
1805	C 5	3886	C 3
1806	D 1	3890	C 5
1807	D 3	3891	C 3
1808	D 3	3898	C 4
1830	C 2	3899	A 4
1850	A 4	5860	B 3
1852	C 2	5861	C 3
1880	A 3	5890	B 1
2769	C 4	6857	B 4
2770	D 4	6858	B 3
2802	B 1	6881	C 3
2818	B 2	6883	C 5
2831	B 1	7820	A 2
2833	B 1	7851	C 1
2843	A 3	7852	C 1
2847	C 1	7853	A 5
2848	A 3	7856	B 4
2849	C 1	7872	C 4
2850	B 1	7881	C 2
2856	B 3	7883	D 5
2860	B 3	7884	D 4
2866	C 4	7885	D 4
2870	D 4	7886	B 4
2874	D 4	9852	D 4
2875	C 4	9853	C 4
2881	B 3	9854	C 1
2882	C 4	9855	C 1
2885	D 4	9856	B 2
2892	C 3	9857	C 2
2896	B 5	9858	A 4
2899	A 4	9859	A 4
3760	A 5	9860	A 4
3761	A 5	9861	A 3
3801	B 2	9862	C 3
3815	A 3	9863	D 4
3818	A 2	9886	A 3
3820	C 1		
3825	A 1		
3826	A 1		
3827	A 1		
3828	A 1		
3829	A 1		
3830	A 1		
3832	B 2		
3834	B 1		
3835	B 1		
3838	B 1		
3847	C 1		
3848	B 1		
3849	C 1		
3851	B 1		
3860	A 4		
3863	D 3		
3864	D 3		
3865	D 3		

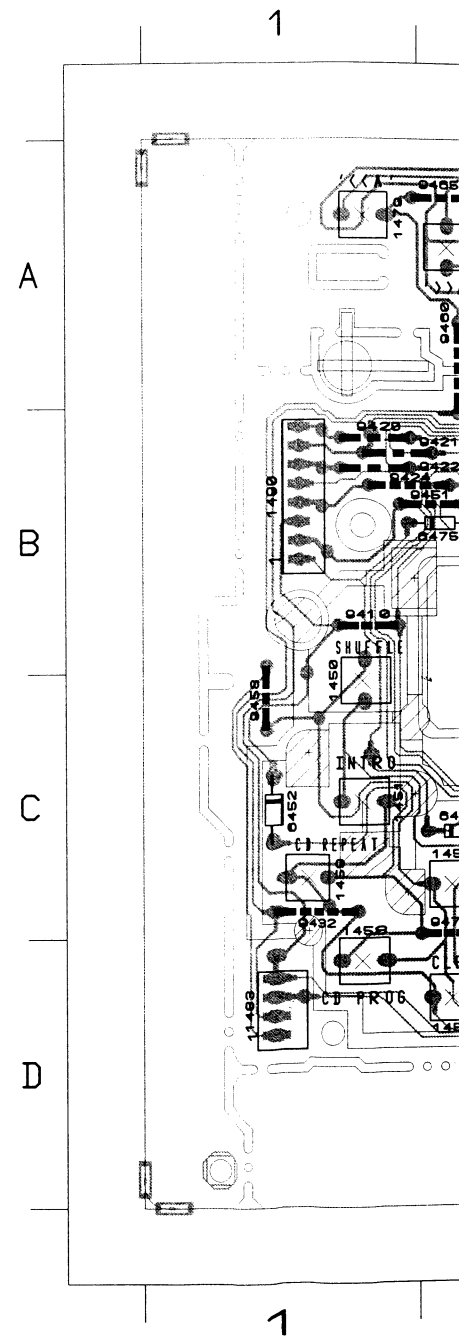
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	1802 A 5	3871 A 4	
	1804 D 5	3885 B 3	
	1805 C 5	3886 C 3	
	1806 D 1	3890 C 5	
	1807 D 3	3891 C 3	
	1808 D 3	3898 C 4	
	1830 C 2	3899 A 4	
	1850 A 4	5860 B 3	
A	1852 C 2	5861 C 3	A
	1880 A 3	5890 B 1	
	2769 C 4	6857 B 4	
	2770 D 4	6858 B 3	
	2802 B 1	6881 C 3	
	2818 B 2	6883 C 5	
	2831 B 1	7820 A 2	
	2833 B 1	7851 C 1	
	2843 A 3	7852 C 1	
	2847 C 1	7853 A 5	
	2848 A 3	7856 B 4	
	2849 C 1	7872 C 4	
	2850 B 1	7881 C 2	
B	2856 B 3	7883 D 5	B
	2860 B 3	7884 D 4	
	2866 C 4	7885 D 4	
	2870 D 4	7886 B 4	
	2874 D 4	9852 D 4	
	2875 C 4	9853 C 4	
	2881 B 3	9854 C 1	
	2882 C 4	9855 C 1	
	2885 D 4	9856 B 2	
	2892 C 3	9857 C 2	
	2896 B 5	9858 A 4	
	2899 A 4	9859 A 4	
C	3760 A 5	9860 A 4	C
	3761 A 5	9861 A 3	
	3801 B 2	9862 C 3	
	3815 A 3	9863 D 4	
	3818 A 2	9886 A 3	
	3820 C 1		
	3825 A 1		
	3826 A 1		
	3827 A 1		
	3828 A 1		
	3829 A 1		
	3830 A 1		
	3832 B 2		
D	3834 B 1		D
	3835 B 1		
	3838 B 1		
	3847 C 1		
	3848 B 1		
	3849 C 1		
	3851 B 1		
	3860 A 4		
	3863 D 3		
	3864 D 3		
	3865 D 3		



CC			
2752	B2	3792	D3
2762	C3	3793	D3
2763	B3	3794	D3
2764	B3	3795	D3
2803	B2	3796	D3
2804	B2	3797	D3
2805	B2	3798	D3
2806	B2	3799	D2
2807	B2	3802	B2
2808	B2	3803	B2
2809	A2	3804	B2
2810	B2	3805	A2
2811	B2	3806	B2
2814	B2	3807	B2
2820	A1	3808	B2
2821	A1	3809	A2
2822	A1	3810	B2
2823	A1	3811	A2
2824	A1	3812	A2
2825	A1	3813	A2
2826	A1	3814	A2
2827	A1	3816	D4
2828	A1	3817	C2
2829	A1	3819	C2
2830	A1	3821	A1
2832	B1	3822	A1
2834	A2	3823	B1
2836	B1	3824	A1
2837	C1	3831	B1
2838	B1	3833	B1
2839	B1	3836	B1
2840	C1	3837	B1
2841	B3	3839	B1
2844	C1	3840	B1
2851	C1	3841	A5
2852	B3	3842	A4
2853	B1	3843	B3
2854	C5	3844	C1
2855	A2	3845	A4
2857	B3	3846	C1
2858	B3	3850	B1
2859	B3	3852	C1
2861	B3	3853	C1
2862	B3	3855	C3
2867	C4	3856	A3
2876	D4	3857	B1
2877	C4	3858	C1
2878	D5	3862	B3
2879	D5	3866	B1
2883	B4	3872	B4
2886	D2	3876	D4
2890	C3	3877	C4
2891	C3	3878	D4
2893	D3	3879	C4
2894	D3	3880	D4
2895	D3	3881	D4
2897	A5	3887	C2
2898	A4	3889	D4
3751	B2	3892	D3
3752	B2	3893	D3
3755	B1	3894	D4
3762	B3	3895	A5
3763	B3	3896	A5
3764	B3	7800	B2
3770	B3	7830	C3
3781	C3	7850	B1
3782	B1	7860	B3
3783	B4	7880	D4
3784	B2	9870	C2
3785	B2	9880	C1
3786	A3	9881	C1
3787	A4	9882	B2
3788	C3	9883	B1
3789	D3	9884	C4
3790	D3	9885	B3



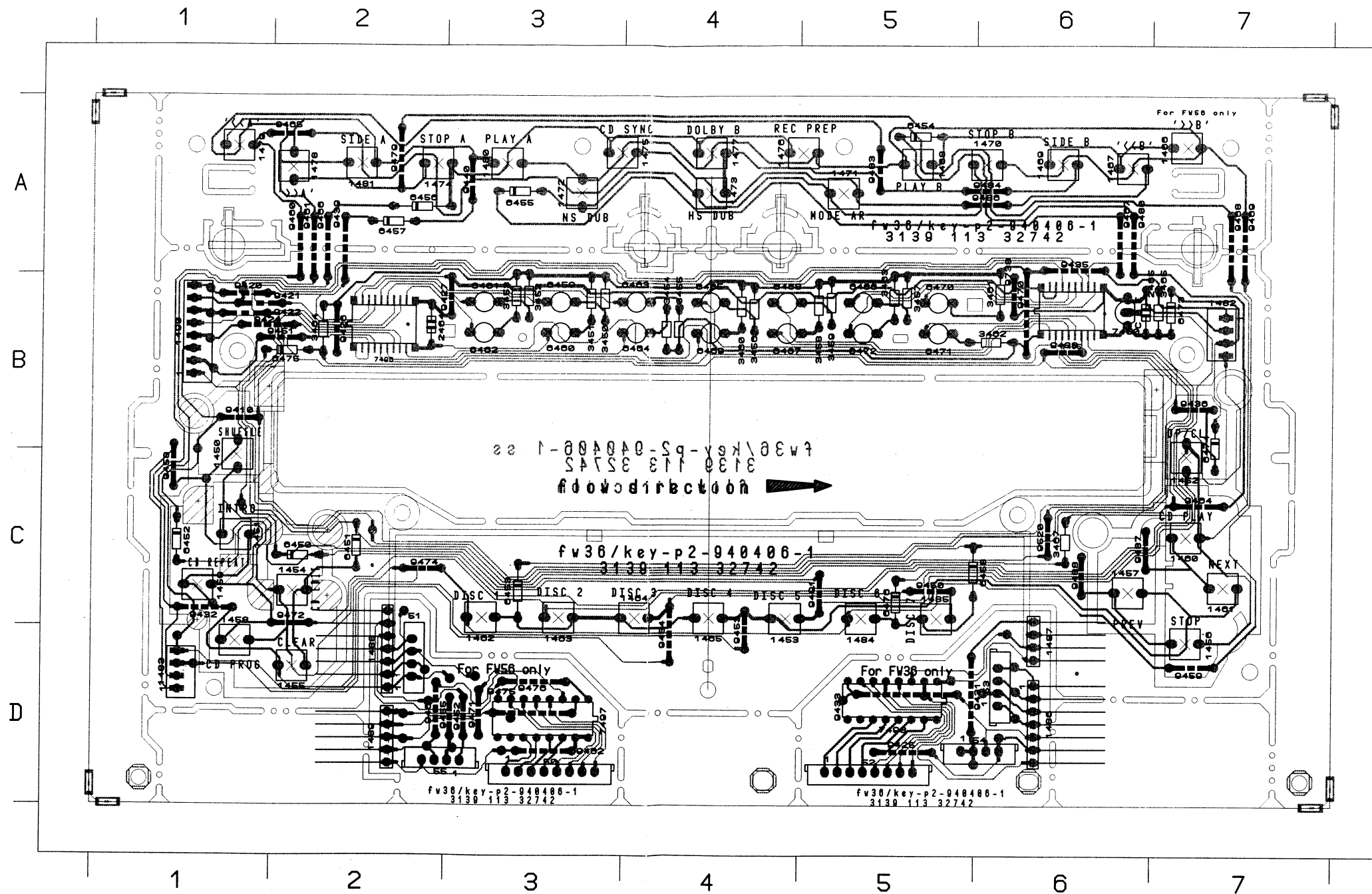
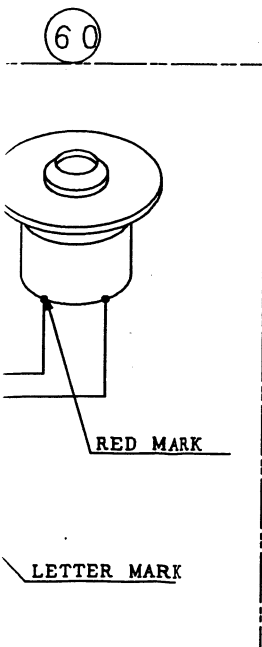
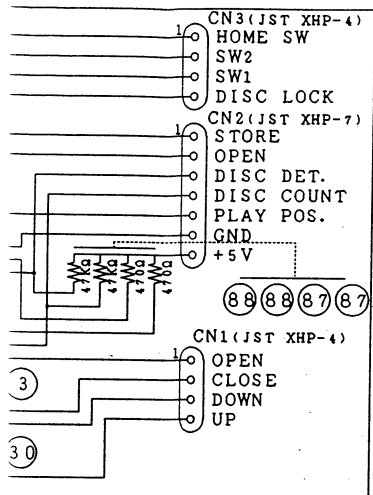
NOTE: NUMBERS IN CIRCLES REFERS TO POSITION
NUMBERS IN THE CDC EXPLODED VIEW.



CDC KEY COMPONENT LAYOUT

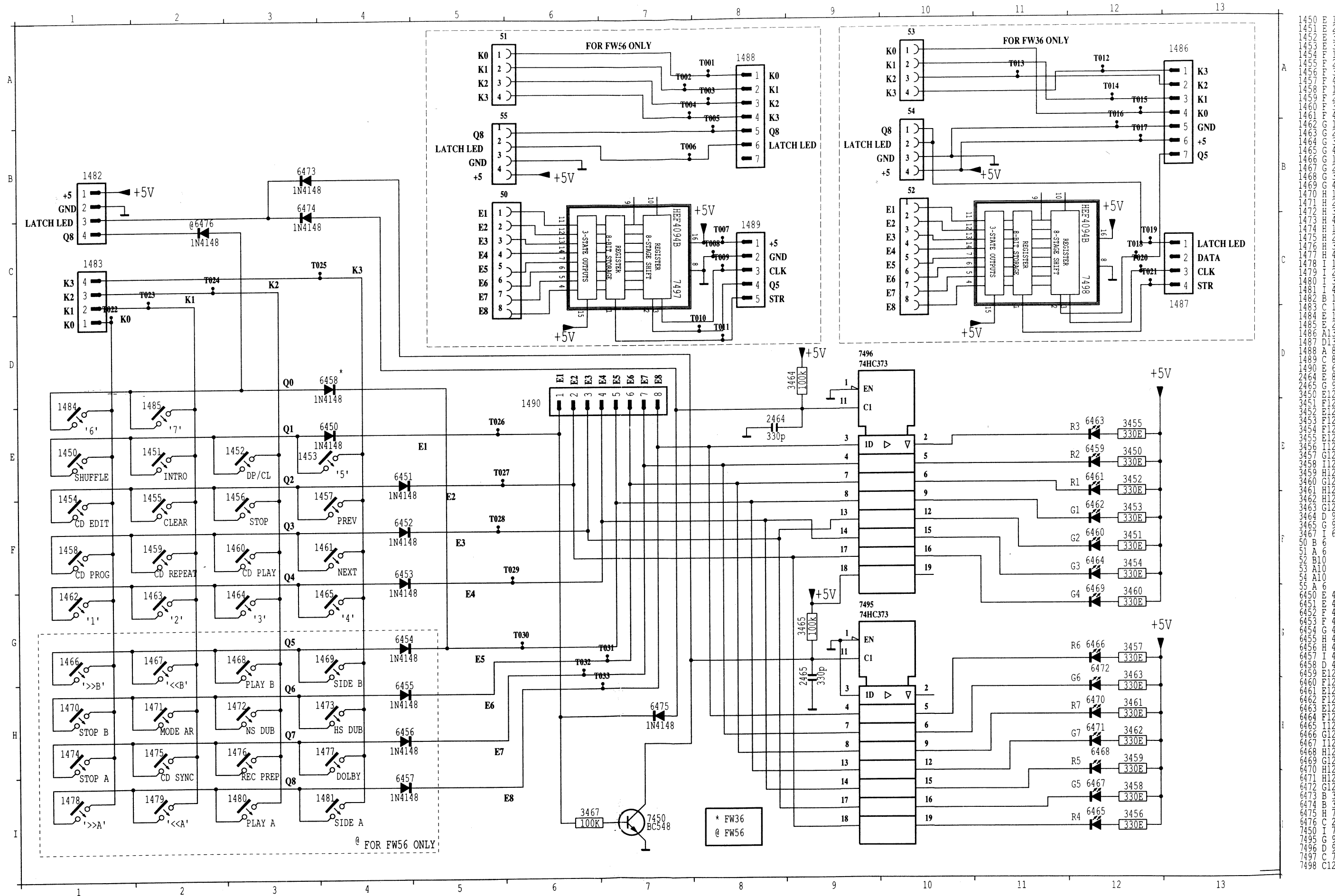
fw36/key-p2-940406-1 spcs

3139 113 32742

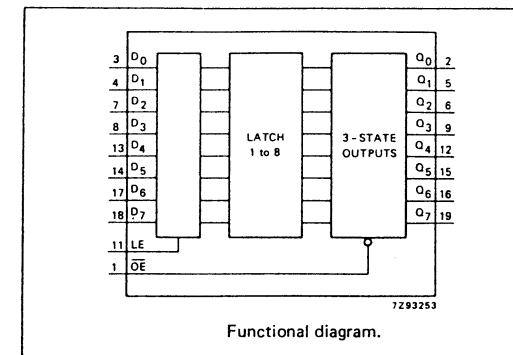
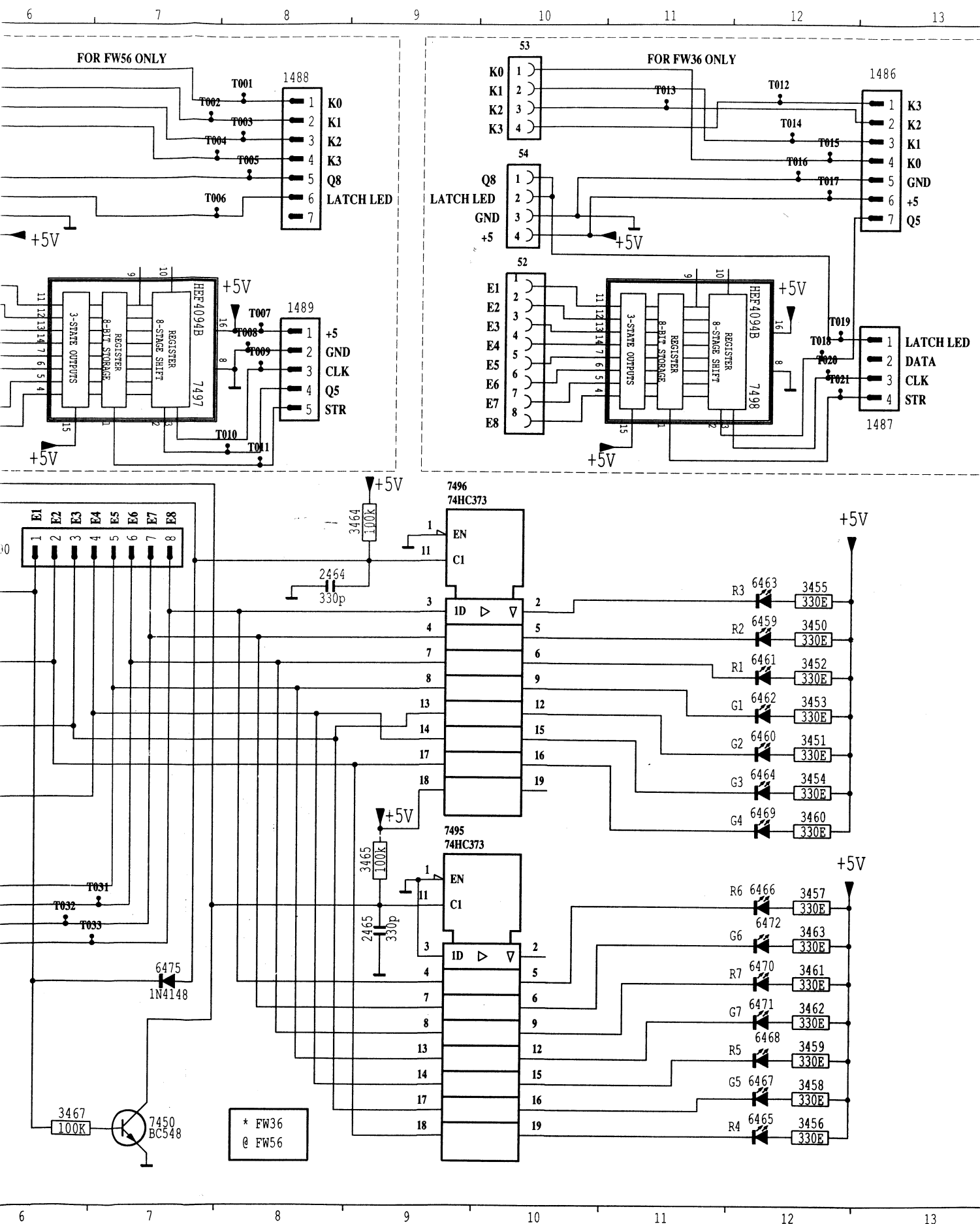


50	D	3	3459	B	5	9454
51	D	2	3460	B	4	9455
52	D	5	3461	B	6	9458
53	D	6	3462	B	6	9459
54	D	6	3463	B	5	9460
55	D	2	3464	B	2	9461
1450	C	1	3465	B	7	9462
1451	C	1	3467	C	6	9463
1452	C	7	6450	C	2	9464
1453	C	4	6451	C	2	9465
1454	C	2	6452	C	1	9466
1455	D	2	6453	C	3	9467
1456	D	7	6454	A	5	9468
1457	C	6	6455	A	3	9469
1458	D	1	6456	A	2	9470
1459	C	1	6457	A	2	9471
1460	C	7	6458	C	5	9472
1461	C	7	6459	B	3	9474
1462	C	3	6460	B	3	9475
1463	C	3	6461	B	3	9476
1464	C	4	6462	B	3	9479
1465	C	4	6463	B	4	9480
1466	A	7	6464	B	4	9483
1467	A	6	6465	B	4	9484
1468	A	5	6466	B	5	9486
1469	A	6	6467	B	4	9487
1470	A	6	6468	B	4	9488
1471	A	5	6469	B	4	9491
1472	A	3	6470	B	5	9520
1473	A	4	6471	B	5	9738
1474	A	2	6472	B	5	
1475	A	3	6473	B	7	
1476	A	5	6474	B	7	
1477	A	4	6475	B	2	
1478	A	2	6476	C	5	
1479	A	1	7450	B	6	
1480	A	3	7497	D	3	
1481	A	2	7498	D	5	
1482	B	7	9410	B	1	
1483	D	1	9420	B	1	
1484	C	5	9421	B	1	
1485	C	5	9422	B	1	
1486	D	6	9424	B	1	
1487	D	6	9425	D	5	
1488	D	2	9426	B	2	
1489	D	2	9427	B	3	
1490	B	1	9431	D	5	
2464	B	2	9432	C	1	
2465	B	6	9433	D	5	
3450	B	3	9435	A	6	
3451	B	3	9436	B	7	
3452	B	3	9438	B	6	
3453	B	3	9439	A	2	
3454	B	4	9440	A	3	
3455	B	4	9450	C	5	
3456	B	4	9451	B	2	
3457	B	5	9452	D	3	
3458	B	5	9453	D	4	

CDC KEY CIRCUIT



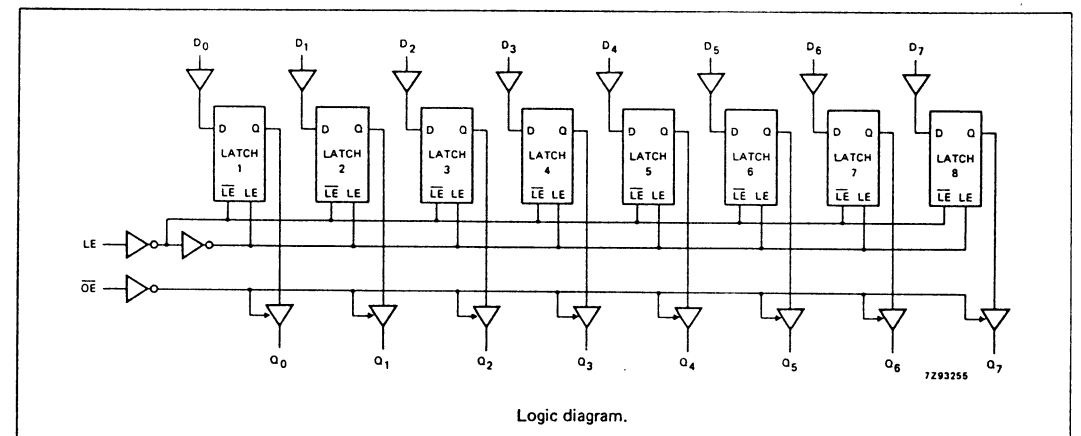
IC 7495 & 7496



FUNCTION TABLE

OPERATING MODES	INPUTS			INTERNAL LATCHES	OUTPUTS Q ₀ to Q ₇
	OE	LE	D _n		
enable and read register (transparent mode)	L L	H H	L H	L H	L H
latch and read register	L L	L L	I h	L H	L H
latch register and disable outputs	H H	L L	I h	L H	Z Z

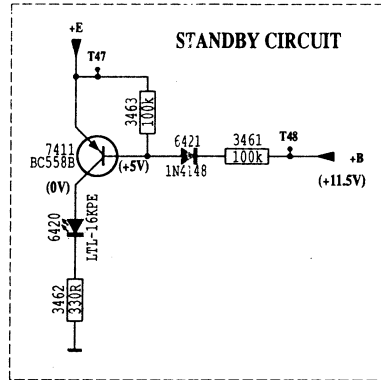
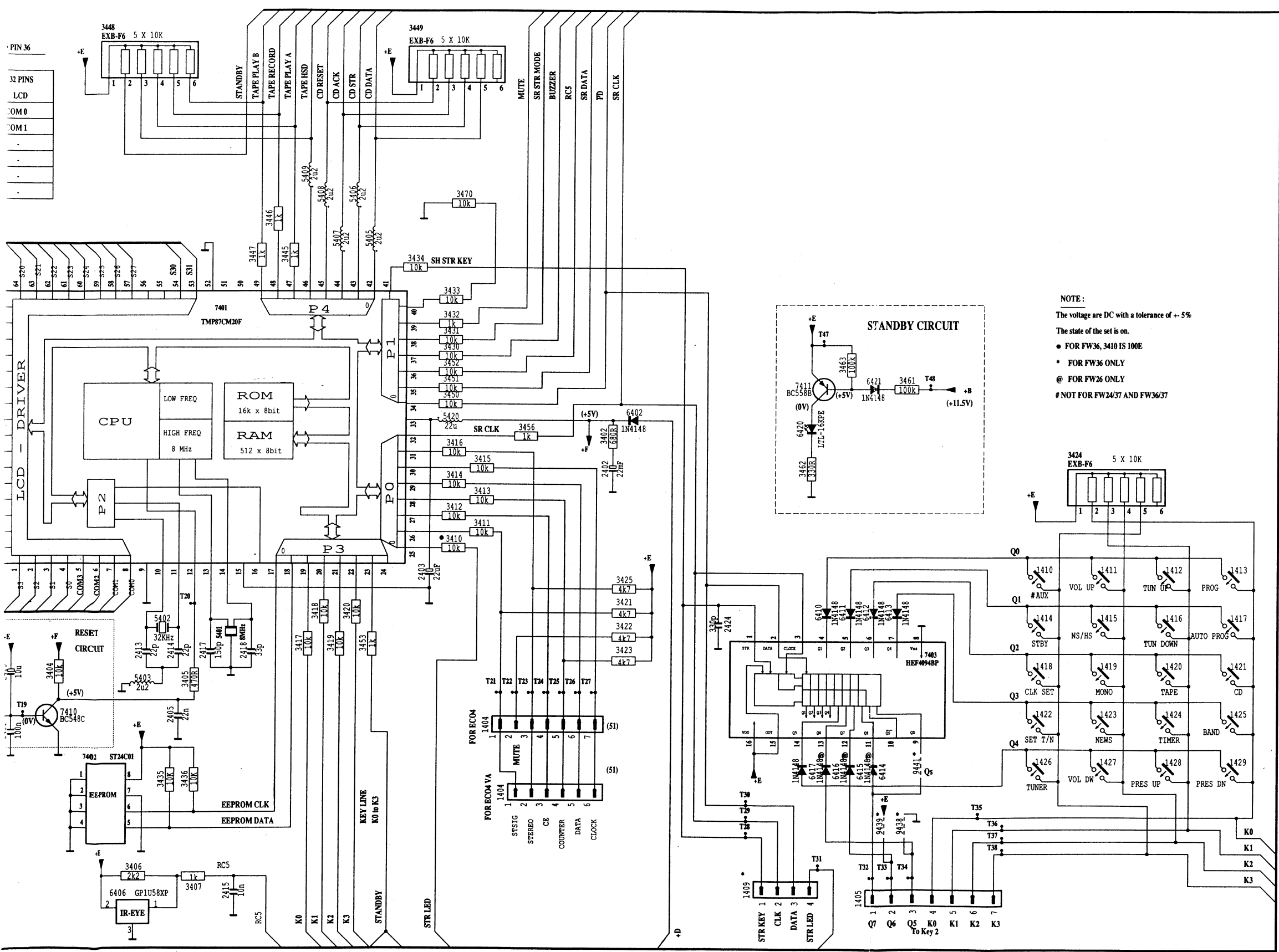
H = HIGH voltage level
h = HIGH voltage level one set-up time prior to the HIGH-to-LOW LE transition
L = LOW voltage level
l = LOW voltage level one set-up time prior to the HIGH-to-LOW LE transition
Z = high impedance OFF-state



PCS 64 087



CONTROL PART



NOTE:
The voltage are DC with a tolerance of $\pm 5\%$
The state of the set is on.
• FOR FW36, 3410 IS 100E
• FOR FW36 ONLY
• FOR FW26 ONLY
• NOT FOR FW24/37 AND FW36/37

- 1401 A 1
- 1402 A 1
- 1403 A 1
- 1404 K11
- 1405 L15
- 1409 L18
- 1410 H18
- 1411 H19
- 1412 H19
- 1413 H20
- 1414 H18
- 1415 H18
- 1416 H19
- 1417 H20
- 1418 J18
- 1419 J19
- 1420 J19
- 1421 J18
- 1422 J18
- 1423 J19
- 1424 J19
- 1425 J20
- 1426 H18
- 1427 K19
- 1428 K19
- 1429 K20
- 2403 L 4
- 2402 G12
- 2403 H10
- 2405 J 7
- 2410 J 5
- 2411 J 5
- 2412 J 5
- 2413 L 8
- 2414 L 7
- 2415 L 8
- 2416 L 8
- 2417 L 8
- 2418 L 8
- 2419 L 8
- 2420 L 8
- 2421 L 8
- 2422 L 8
- 2423 L 8
- 2424 L 8
- 2425 L 8
- 2426 L 8
- 2427 L 8
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- 2434 L 8
- 2435 L 8
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- 2437 L 8
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- 2439 L 8
- 2440 L 8
- 2441 L 8
- 2442 L 8
- 2443 L 8
- 2444 L 8
- 2445 L 8
- 2446 L 8
- 2447 L 8
- 2448 L 8
- 2449 L 8
- 2450 L 8
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- 2491 L 8
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- 2498 L 8
- 2499 L 8
- 2500 L 8

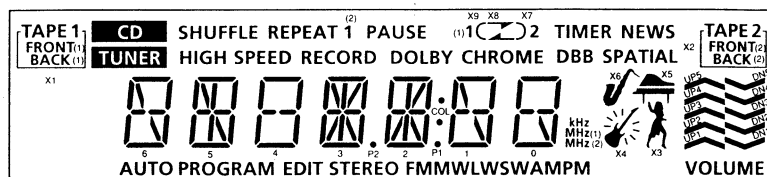
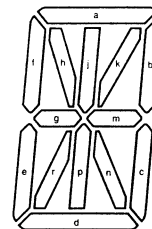


Figure 7. LCD pins connections



FW36/37 LCD DISPLAY PIN CONNECTIONS

PIN NO.	COM 0	COM 1	COM 2	COM 3
1	-	-	COM 2	-
2	-	-	-	COM 3
3	6gm	6f	6e	6n
4	6b	6a	6c	6d
5	FRONT (1)	6h	BACK (1)	TAPE 1,X1
6	SHUFFLE	CD	HIGH SPEED	AUTO
7	5g	5f	5e	PROGRAM
8	5b	5a	5c	5d
9	TUNER	5hn	5m	5jp
10	1 (1), 2	TIMER	RECORD	REPEAT
11	4gm	4f	4e	EDIT
12	4b	4a	4c	4d
13	X7	X9	X8	1 (2)
14	FRONT (2)	X6	BACK (2)	TAPE 2,X2
15	3g	3f	3e	3n
16	3b	3a	3c	3d
17	3k	3h	3m	3jp
18	3r	DBB	PAUSE	STEREO
19	2gm	2f	2e	2n
20	2b	2a	2c	2d
21	2kr	CHROME	DOLBY	2jp
22	LW	-	MW	-
23	1gm	1f	1e	1n
24	1b	1a	1c	1d
25	COL	1h	FM,P1,MHz (1)	SW,P2,MHz (2)
26	X4	kHz	PM	AM
27	0gm	0f	0e	0n
28	0b	0a	0c	0d
29	X3	X5	SPATIAL	NEWS
30	UP1	DN1	-	VOLUME
31	-	-	-	-
32	-	-	-	-
33	DN2	DN3	DN4	DN5
34	UP2	UP3	UP4	UP5
35	COM 0	-	-	-
36	-	COM 1	-	-

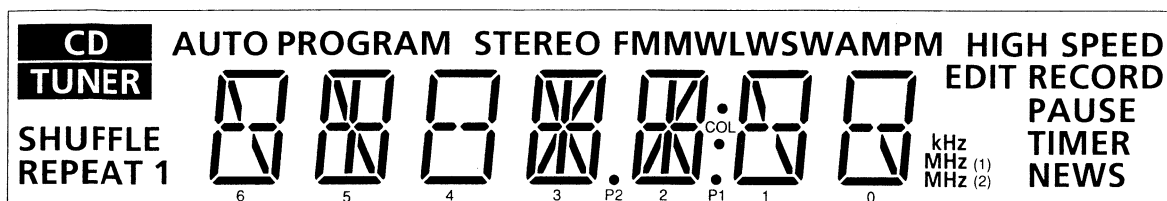
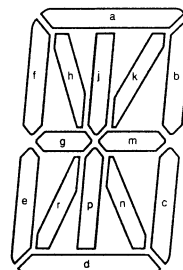
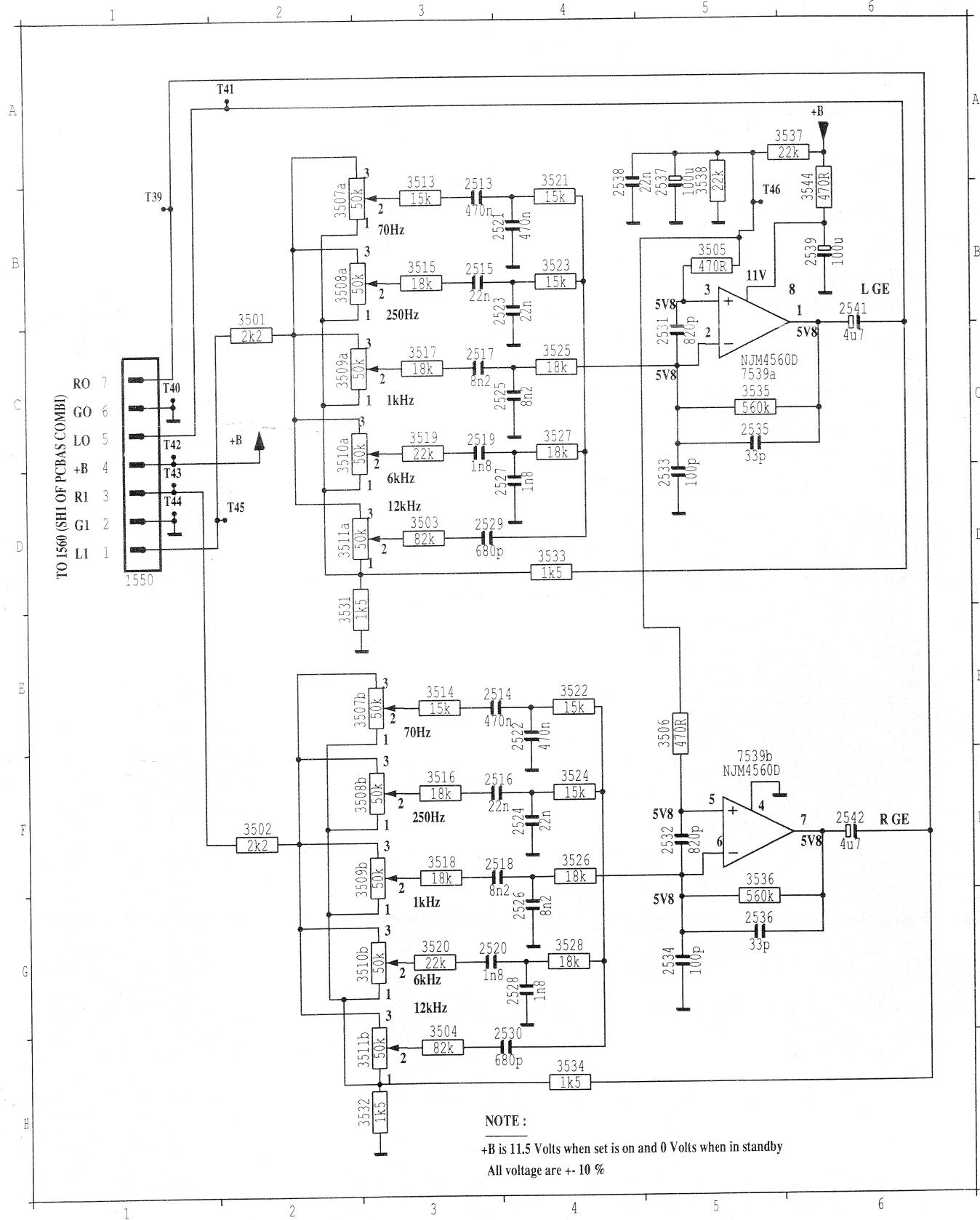


Figure 8. LCD pin connections



FW36/37 LCD DISPLAY PIN CONNECTIONS

PIN NO.	COM 0	COM 1	COM 2	COM 3
1	-	-	COM 2	-
2	-	-	-	COM 3
3	6gm	6f	6e	6n
4	6b	6a	6c	6d
5	-	6h	-	-
6	SHUFFLE	CD	HIGH SPEED	AUTO
7	5g	5f	5e	PROGRAM
8	5b	5a	5c	5d
9	TUNER	5hn	5m	5jp
10	-	TIMER	RECORD	REPEAT
11	4gm	4f	4e	EDIT
12	4b	4a	4c	4d
13	-	-	-	1
14	-	-	-	-
15	3g	3f	3e	3n
16	3b	3a	3c	3d
17	3k	3h	3m	3jp
18	3r	-	PAUSE	STEREO
19	2gm	2f	2e	2n
20	2b	2a	2c	2d
21	2kr	-	-	2jp
22	LW	-	MW	-
23	1gm	1f	1e	1n
24	1b	1a	1c	1d
25	COL	1h	FM,P1,MHz (1)	SW,P2,MHz (2)
26	-	kHz	PM	AM
27	0gm	0f	0e	0n
28	0b	0a	0c	0d
29	-	-	-	NEWS
30	-	-	-	-
31	COM 0	-	-	-
32	-	COM 1	-	-

[illegible]

1401	E8	3424	E3	7411	G10
1403	B10	3425	B5	7539	H9
1404	B5	3430	C9	9250	F11
1405	I4	3431	C9	9251	F11
1409	G4	3432	C9	9252	I12
1410	H3	3433	D9	9253	H11
1411	F12	3434	D11	9254	G11
1412	D14	3435	C6	9430	D4
1413	D13	3436	D5	9431	F4
1414	I3	3445	D10	9432	F4
1415	H10	3446	D10	9433	F4
1416	D13	3447	D10	9434	F4
1417	D13	3448	B9	9435	G2
1418	G3	3449	C11	9437	I3
1419	D2	3450	B9	9438	I3
1420	H2	3451	C9	9441	F11
1421	G2	3452	D9	9446	C7
1422	C4	3453	C8	9447	E12
1423	C3	3454	D11	9448	E12
1424	C2	3456	B9	9449	C10
1425	D2	3461	G9	9450	E12
1426	G3	3462	F10	9451	D13
1427	I12	3463	G11	9452	D13
1428	C13	3468	D10	9453	E11
1429	C12	3470	E11	9454	F13
1550	F12	3501	F8	9455	F14
2402	B9	3502	G8	9456	F14
2403	D9	3503	H8	9457	F13
2405	D6	3504	I8	9458	D12
2410	C6	3505	G8	9459	D12
2411	D5	3506	H9	9460	D12
2413	D6	3507	G5	9461	D12
2414	C6	3508	G5	9462	D12
2415	I11	3509	G6	9463	D12
2417	C7	3510	G7	9463	D11
2418	C7	3511	G7	9464	B11
2424	F2	3513	H5	9465	B11
2513	H5	3514	H5	9466	B11
2514	H5	3515	H6	9467	D10
2515	H6	3516	H6	9469	E9
2516	H6	3517	H7	9470	B8
2517	H7	3518	I7	9471	D7
2518	I7	3519	H7	9472	C5
2519	H7	3520	I7	9473	C5
2520	I7	3521	H5	9474	C5
2521	I5	3522	I5	9475	D4
2522	H5	3523	I6	9476	D4
2523	I6	3524	I6	9477	D4
2524	I6	3526	I7	9478	D4
2525	I7	3527	H7	9479	D4
2526	I7	3528	I7	9480	D4
2527	I7	3531	G7	9481	G3
2528	I7	3532	G6	9482	E4
2529	H8	3533	G8	9483	E4
2530	I8	3534	I9	9484	E4
2531	H9	3535	H7	9485	E4
2532	H9	3535	G9	9486	E3
2533	G9	3536	I9	9487	E3
2534	I9	3537	G8	9488	F3
2535	G9	3538	H8	9489	F3
2536	I9	3544	H9	9490	F3
2537	G8	5401	C7	9491	F3
2538	H8	5402	C7	9491	F3
2539	H9	5403	D6	9492	F3
2541	G9	5404	C10	9493	F3
2542	I9	5405	C10	9494	G3
3401	C11	5406	C10	9494	G4
3402	C9	5407	C10	9495	G3
3403	D6	5408	E10	9496	G3
3404	D6	5409	D10	9497	H3
3405	C6	5420	C10	9498	F3
3406	I11	6401	C11	9499	D10
3407	I11	6406	H11	9500	G8
3410	B8	6410	E3	9501	G8
3411	B8	6411	E2	9502	H8
3412	B7	6412	E2	9503	H8
3413	B7	6413	E2	9504	I8
3414	B7	6414	H3	9505	I8
3415	B7	6415	H3	9506	H7
3416	B7	6416	H3	9507	H7
3417	C7	6417	C3	9508	H6
3418	C7	6420	C10	9509	H6
3419	C7	6421	G9	9510	G5
3420	B7	7401	D3	9512	G11
3421	C5	7402	C5	9513	F10
3422	C5	7403	F2		
3423	C6	7410	C5		

9 - 7

COMBI BOARD COMPONENT LAYOUT

7713 A5
7714 A6
7715 B6
7720 B5

BIAS OSCILLATOR ADJUSTMENT

TAPE DECK POSITION	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Record	1	Frequency counter	5701	65kHz $\pm$ 5kHz

RIF Service solution:
Add capacitor 2755 10nF 5% (4822 121 41857) across capacitor 2725 as indicated in the circuit.

fw36/cb1-p2-940328-1
3139 113 32722

NOTE: THIS LAYOUT IS COMPLETE FOR ALL VERSIONS/OPTIONS
FOR DIFFERENCES PLEASE REFER TO SCHEMATIC DIAGRAM

ELECTRONIC TAPE FUNCTION

MODE SEL

VOLUME UP/DOWN

POWER AMP & SUPPLY

3139 113 32722
fw36/cb1-p2-940328-1

CAUTION: FOR CONTINUED PROTECTION AGAINST
REPLACE WITH SAME TYPE: TR 5, SLOW BLOW, 1A
ATTENTION: POUR PROTECTION CONTRE INCENDIE
FUSIBLE SEULEMENT PAR LE MEME TYPE: FUSIBLE

TRANSFORMER

3139 113 32722
fw36/cb1-p2-940328-1

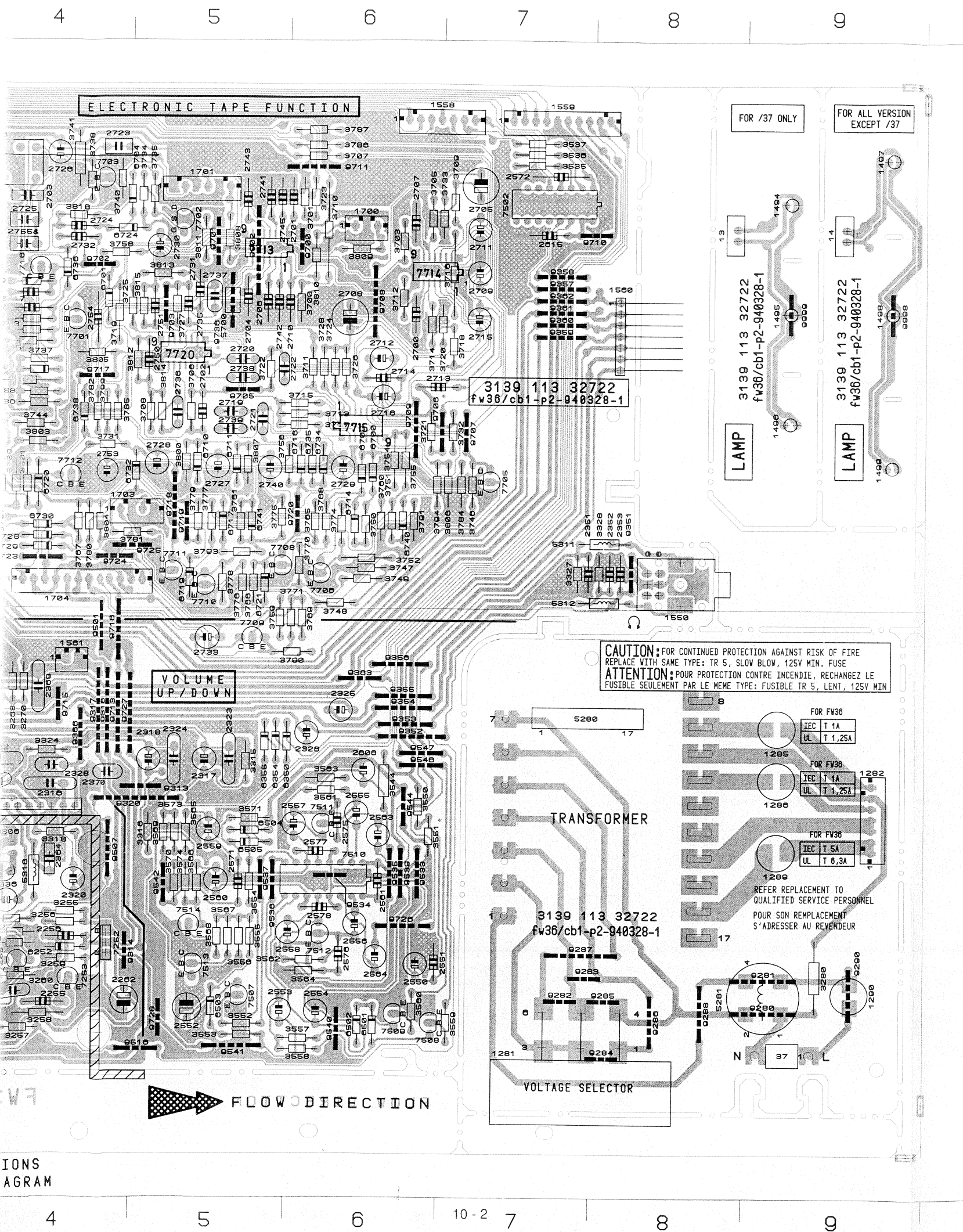
VOLTAGE SELECTOR

FOR /37 ONLY

3139 113 32722
fw36/cb1-p2-940328-1

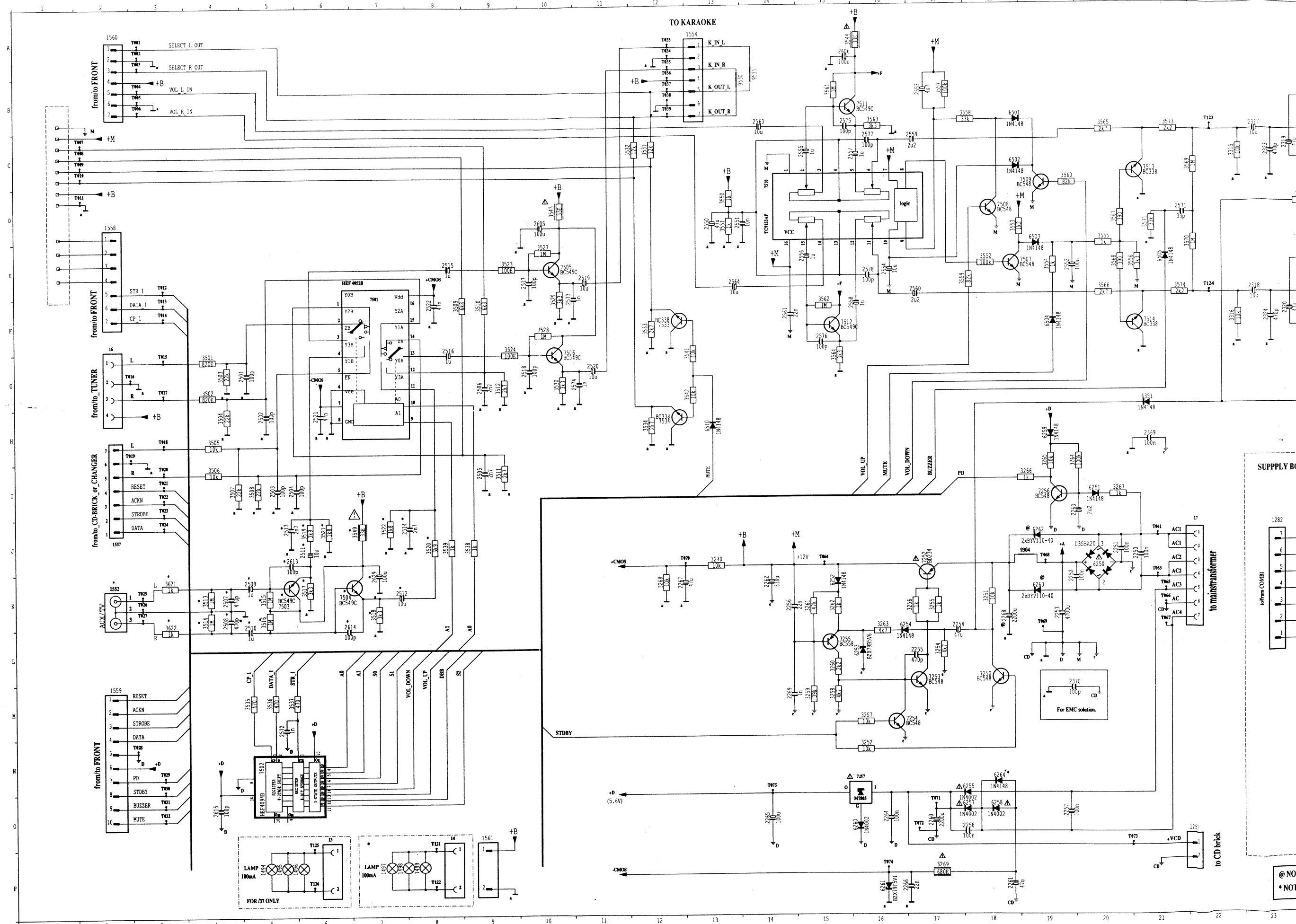
LAMP

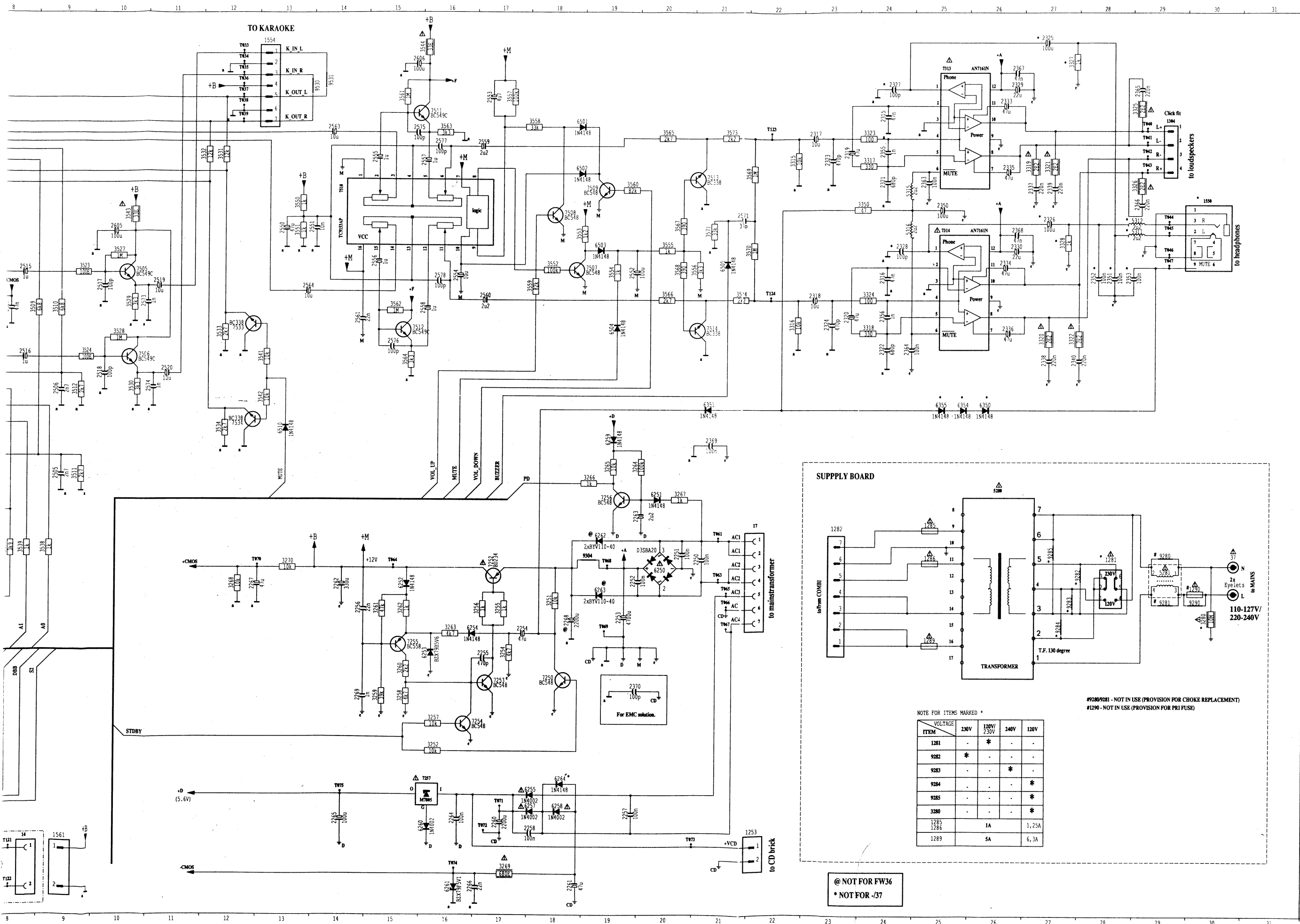
FW36 COMBI PCB SOLDER SIDE
FLOW DIRECTION

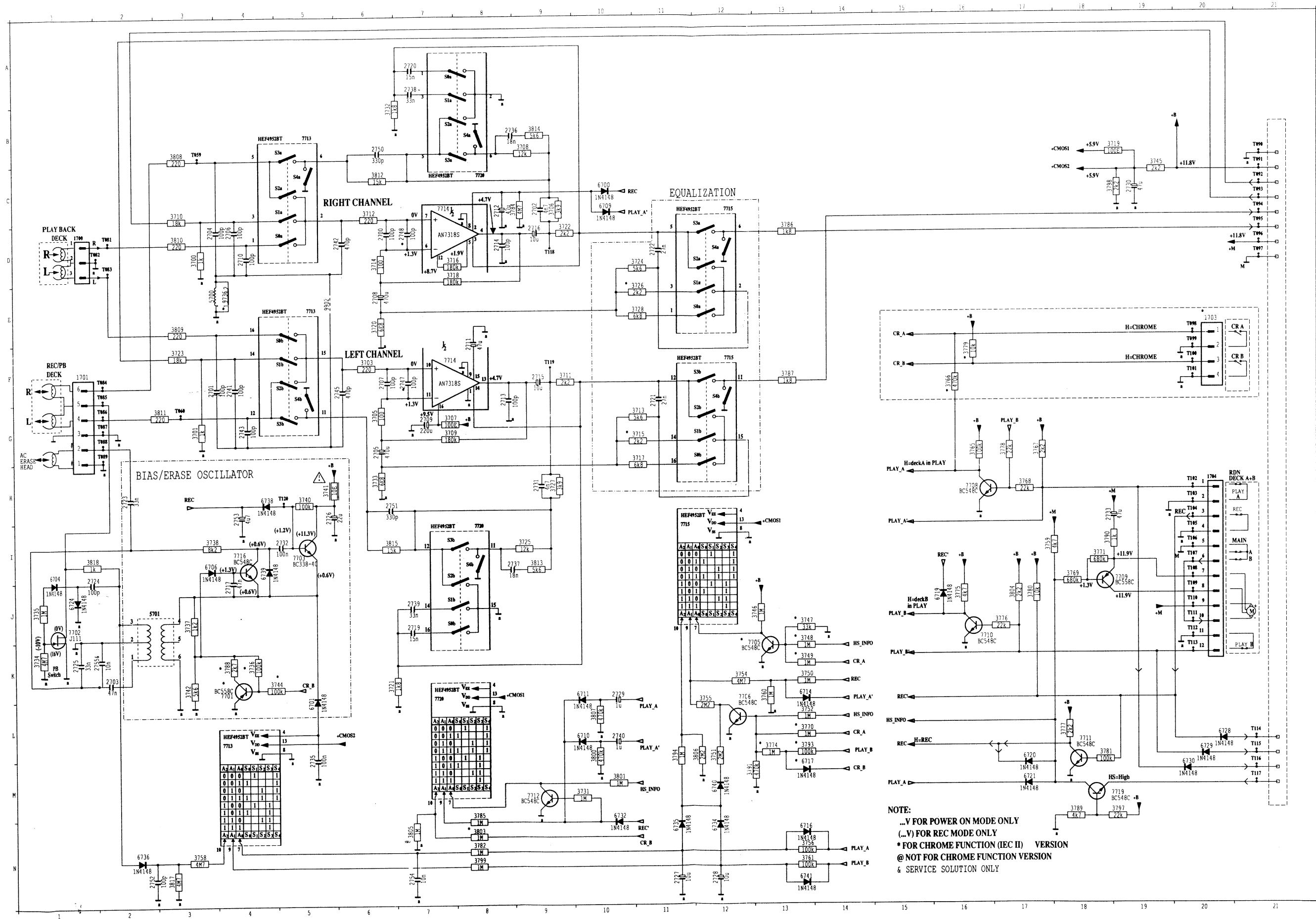


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16 B 2	2510 A 1	3257 F 4	3574 E 5	3810 A 6	7708 C 5	9549 A 3
17 E 2	2511 A 2	3258 F 4	3621 A 1	3811 A 5	7709 D 5	9550 B 3
37 F 9	2512 A 2	3259 F 4	3622 A 1	3812 B 5	7710 C 5	9551 B 3
1253 D 2	2513 B 2	3260 F 4	3700 A 6	3813 A 5	7711 C 5	9552 C 3
1281 F 7	2514 C 2	3261 F 4	3701 A 6	3814 B 5	7712 C 4	9553 C 3
1282 E 9	2515 B 1	3262 F 4	3703 A 6	3815 A 5	7716 A 4	9554 A 2
1285 D 9	2516 B 2	3263 F 3	3705 A 6	3817 B 4	7719 C 4	9555 A 6
1286 E 9	2517 B 1	3264 D 1	3706 B 5	3818 A 4	9280 F 9	9701 A 5
1289 E 9	2518 B 2	3265 D 1	3707 A 6	5280 D 7	9281 F 9	9702 A 4
1290 F 9	2519 B 2	3266 D 3	3708 B 5	5281 F 9	9282 F 7	9703 A 5
1304 E 1	2520 A 2	3267 D 1	3709 A 7	5311 C 8	9283 F 7	9705 B 5
1494 A 9	2521 C 1	3268 D 4	3710 A 6	5312 C 8	9284 F 8	9706 B 6
1495 B 9	2522 C 2	3269 D 3	3711 B 6	5315 E 3	9285 F 8	9707 B 7
1496 B 9	2550 F 6	3270 D 4	3712 A 6	5316 E 4	9286 F 8	9708 A 6
1497 A 9	2551 F 6	3280 F 9	3713 B 6	5700 A 5	9287 F 7	9709 B 6
1498 B 9	2552 F 5	3315 D 5	3714 B 6	5701 A 4	9288 F 8	9710 A 8
1499 C 9	2553 F 5	3316 E 5	3715 B 6	6250 F 2	9290 F 9	9711 A 6
1550 C 8	2554 F 6	3317 E 3	3716 A 7	6251 D 2	9300 E 2	9713 D 4
1552 A 1	2555 E 6	3318 E 4	3717 B 6	6252 F 4	9301 E 2	9715 D 4
1554 A 3	2556 E 6	3319 E 2	3718 B 7	6253 F 4	9302 F 2	9716 D 4
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1558 A 6	2558 F 6	3321 E 2	3720 B 6	6255 D 2	9304 F 3	9718 C 5
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1560 B 8	2560 E 5	3323 D 3	3722 B 5	6258 D 2	9306 E 3	9720 C 6
1561 D 4	2561 E 6	3324 D 4	3723 A 6	6259 D 3	9307 E 3	9723 C 4
1700 A 6	2563 E 6	3325 D 1	3724 B 6	6260 D 3	9308 F 2	9724 C 4
1701 A 5	2564 F 6	3326 F 1	3725 A 4	6261 D 3	9309 F 3	9725 C 5
1703 C 5	2571 E 5	3327 C 7	3726 B 6	6262 F 1	9310 F 3	9726 F 6
1704 C 4	2572 A 7	3328 C 8	3727 A 5	6263 F 1	9311 F 3	9727 D 4
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2252 E 2	2575 E 6	3502 C 2	3732 B 7	6351 F 3	9314 F 4	9736 A 5
2253 F 3	2576 F 6	3503 B 2	3733 A 6	6354 D 5	9315 D 3	9902 A 5
2254 F 3	2577 E 6	3504 C 2	3734 A 5	6355 D 5	9316 D 4	9998 B 9
2255 F 4	2578 E 6	3505 B 1	3735 A 5	6501 F 6	9317 D 4	9999 B 9
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2262 F 4	2629 A 2	3511 B 2	3742 B 4	6700 C 6	9323 F 2	
2263 D 2	2700 B 6	3512 C 2	3744 B 4	6701 A 4	9324 C 2	
2264 D 3	2701 A 6	3513 A 1	3745 B 4	6704 A 4	9325 B 2	
2265 D 3	2702 B 5	3514 A 2	3746 C 7	6706 B 4	9326 C 3	
2266 D 3	2703 A 4	3515 A 2	3747 C 6	6709 C 6	9327 C 3	
2267 D 4	2704 A 5	3516 A 2	3748 C 6	6710 B 5	9328 C 3	
2268 F 2	2705 A 7	3517 A 2	3749 C 6	6711 B 5	9351 C 8	
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2316 E 4	2708 B 6	3520 C 1	3752 C 6	6717 C 5	9354 D 6	
2317 D 5	2709 A 7	3521 B 2	3754 B 6	6719 C 5	9355 D 6	
2318 D 5	2710 A 6	3522 C 2	3755 B 6	6720 C 4	9356 D 6	
2319 E 3	2711 A 7	3523 B 1	3756 B 6	6721 C 5	9357 A 7	
2320 E 4	2712 B 6	3524 B 2	3758 A 4	6724 A 4	9358 A 7	
2321 D 3	2713 B 6	3527 A 2	3759 C 5	6728 C 4	9359 B 7	
2322 D 4	2714 B 6	3528 B 2	3760 C 6	6729 C 4	9360 B 7	
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2325 D 6	2717 A 4	3531 A 3	3766 C 5	6734 B 6	9363 D 6	
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2327 D 3	2720 B 5	3533 A 3	3768 C 6	6736 A 4	9365 D 3	
2328 D 4	2721 B 5	3534 A 3	3769 C 6	6738 B 4	9366 D 4	
2329 D 2	2722 B 5	3535 A 7	3770 C 6	6739 A 4	9501 D 4	
2330 D 3	2723 A 4	3536 A 7	3771 C 6	6740 C 6	9503 B 3	
2333 E 2	2724 A 4	3537 A 7	3774 C 6	6741 C 5	9504 A 2	
2334 E 3	2725 A 4	3538 C 1	3775 C 5	7250 F 3	9506 B 3	
2335 E 2	2726 A 4	3539 C 1	3776 C 5	7252 F 4	9507 E 4	
2336 E 4	2727 C 5	3541 A 3	3777 C 5	7253 F 4	9508 B 3	
2337 E 2	2728 B 5	3542 A 3	3778 C 5	7254 F 3	9509 B 2	
2338 E 3	2729 C 6	3543 C 3	3779 C 5	7255 F 4	9510 B 3	
2339 E 2	2730 A 5	3544 E 6	3780 C 4	7256 D 1	9511 B 3	
2340 E 4	2731 A 5	3549 A 2	3781 C 5	7257 D 3	9512 C 2	
2350 E 3	2732 A 4	3550 E 6	3782 B 4	7313 E 2	9515 B 4	
2351 C 7	2733 D 5	3551 E 6	3784 C 7	7314 E 4	9516 F 5	
2352 C 8	2735 A 5	3552 F 5	3785 B 4	7501 C 2	9517 A 2	
2353 C 8	2736 B 5	3553 F 5	3786 A 6	7502 A 7	9518 A 2	
2355 E 3	2737 A 5	3554 E 5	3787 A 6	7503 A 2	9520 C 3	
2356 E 4	2738 B 5	3555 F 5	3788 B 4	7504 A 2	9522 D 3	
2363 E 3	2739 B 5	3556 F 5	3789 C 4	7505 B 2	9523 B 3	
2364 E 4	2740 C 5	3557 F 6	3790 D 6	7506 B 2	9526 B 3	
2365 D 1	2741 A 5	3558 F 6	3791 C 6	7507 F 5	9530 A 3	
2366 F 1	2742 A 5	3559 F 7	3793 C 5	7508 F 6	9531 A 3	
2367 E 2	2743 A 5	3560 F 6	3794 C 6	7509 F 6	9533 E 6	
2368 E 3	2745 A 5	3561 E 6	3797 C 4	7510 E 6	9534 E 6	
2369 D 4	2750 B 5	3562 F 6	3798 B 4	7511 E 6	9535 E 6	
2370 E 4	2751 A 5	3563 E 6	3799 B 4	7512 F 6	9536 E 5	
2501 B 2	2752 A 4	3564 F 6	3800 B 5	7513 F 5	9537 E 5	
2502 C 2	2753 C 4	3565 E 5	3801 C 4	7514 E 5	9539 E 6	
2503 B 1	2754 B 4	3566 E 5	3803 B 4	7533 A 3	9540 F 6	
2504 C 2	2755 A 4	3567 F 5	3804 C 4	7534 B 3	9541 F 5	
2505 B 2	3251 F 3	3568 F 5	3805 B 4	7701 B 4	9542 E 5	
2506 C 2	3252 F 3	3569 E 5	3806 C 7	7702 A 5	9544 E 6	
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COMBI CIRCUIT I

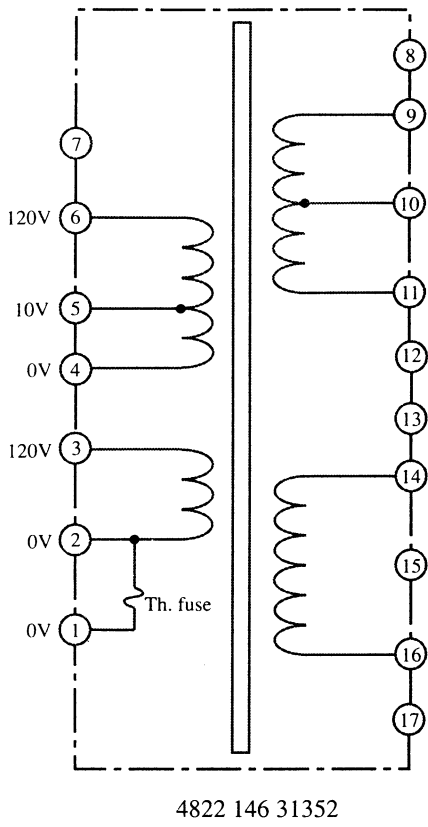
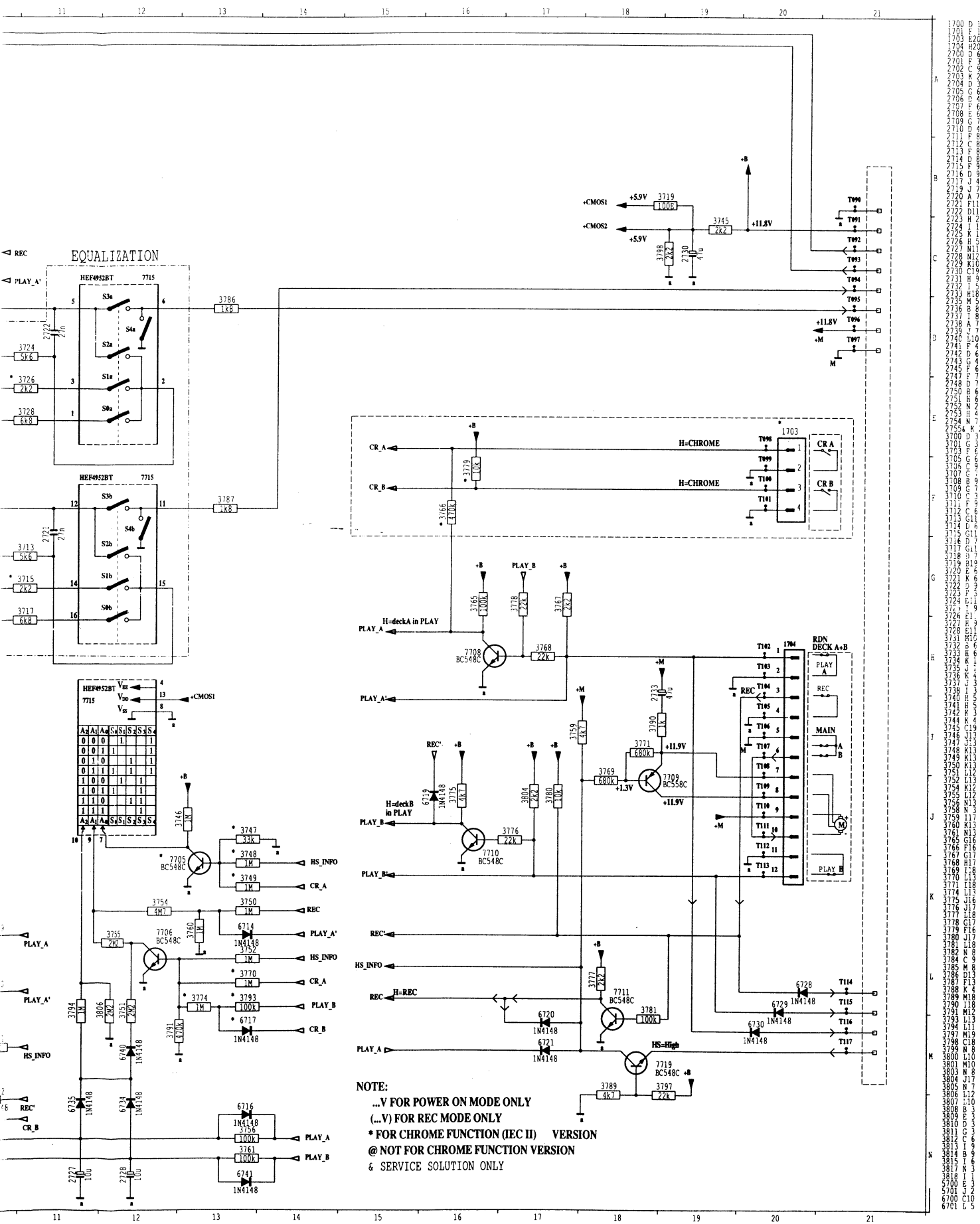




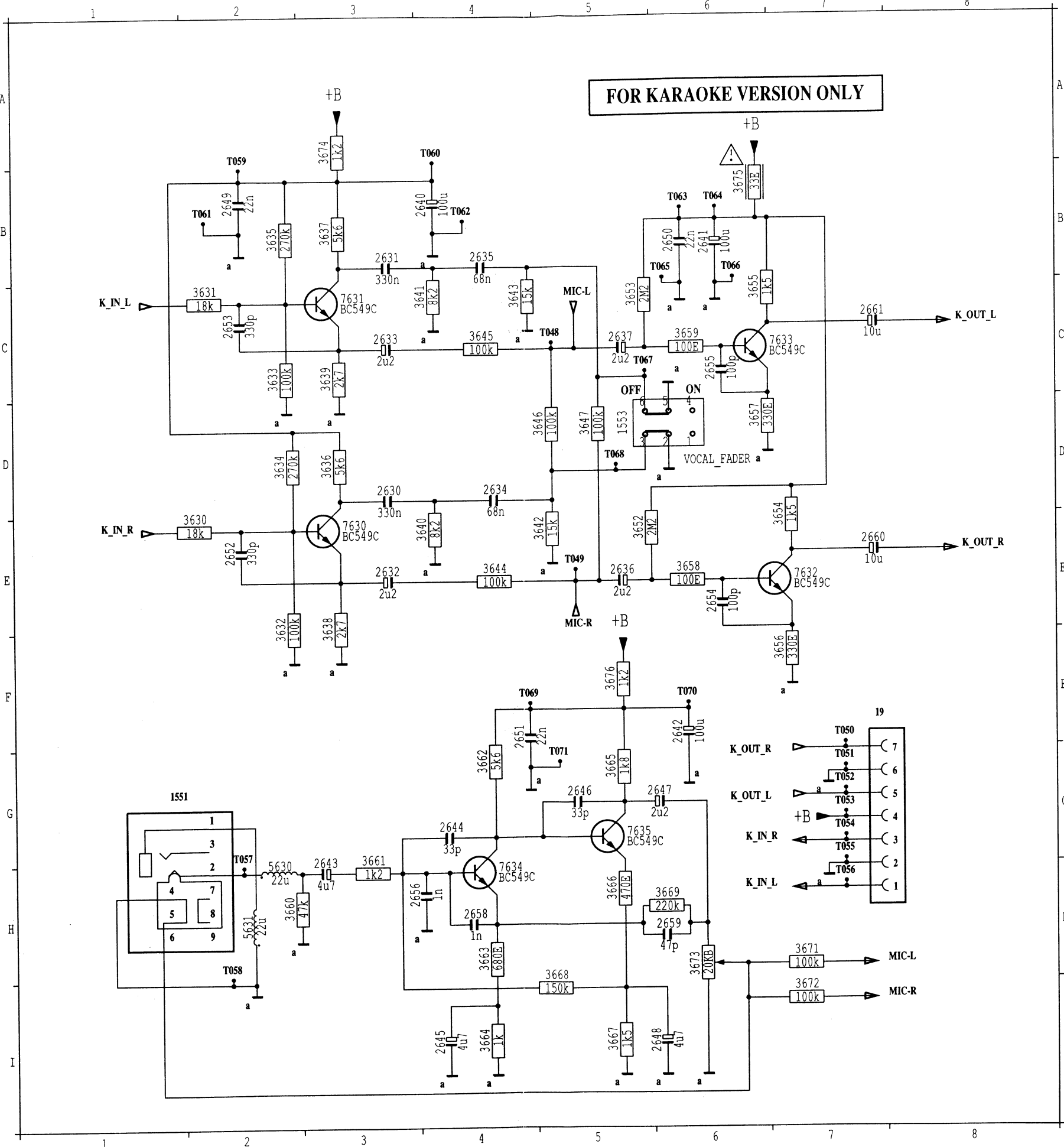


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1704	H20	6712	10
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1706	H20	6716	10
1707	H20	6718	10
1708	H20	6720	10
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1718	H20	6740	10
1719	H20	6742	10
1720	H20	6744	10
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1724	H20	6752	10
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1733	H20	6770	10
1734	H20	6772	10
1735	H20	6774	10
1736	H20	6776	10
1737	H20	6778	10
1738	H20	6780	10
1739	H20	6782	10
1740	H20	6784	10
1741	H20	6786	10
1742	H20	6788	10
1743	H20	6790	10
1744	H20	6792	10
1745	H20	6794	10
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1747	H20	6798	10
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1784	H20	6872	10
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1790	H20	6884	10
1791	H20	6886	10
1792	H20	6888	10
1793	H20	6890	10
1794	H20	6892	10
1795	H20	6894	10
1796	H20	6896	10
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TRANSFORMER WINDING

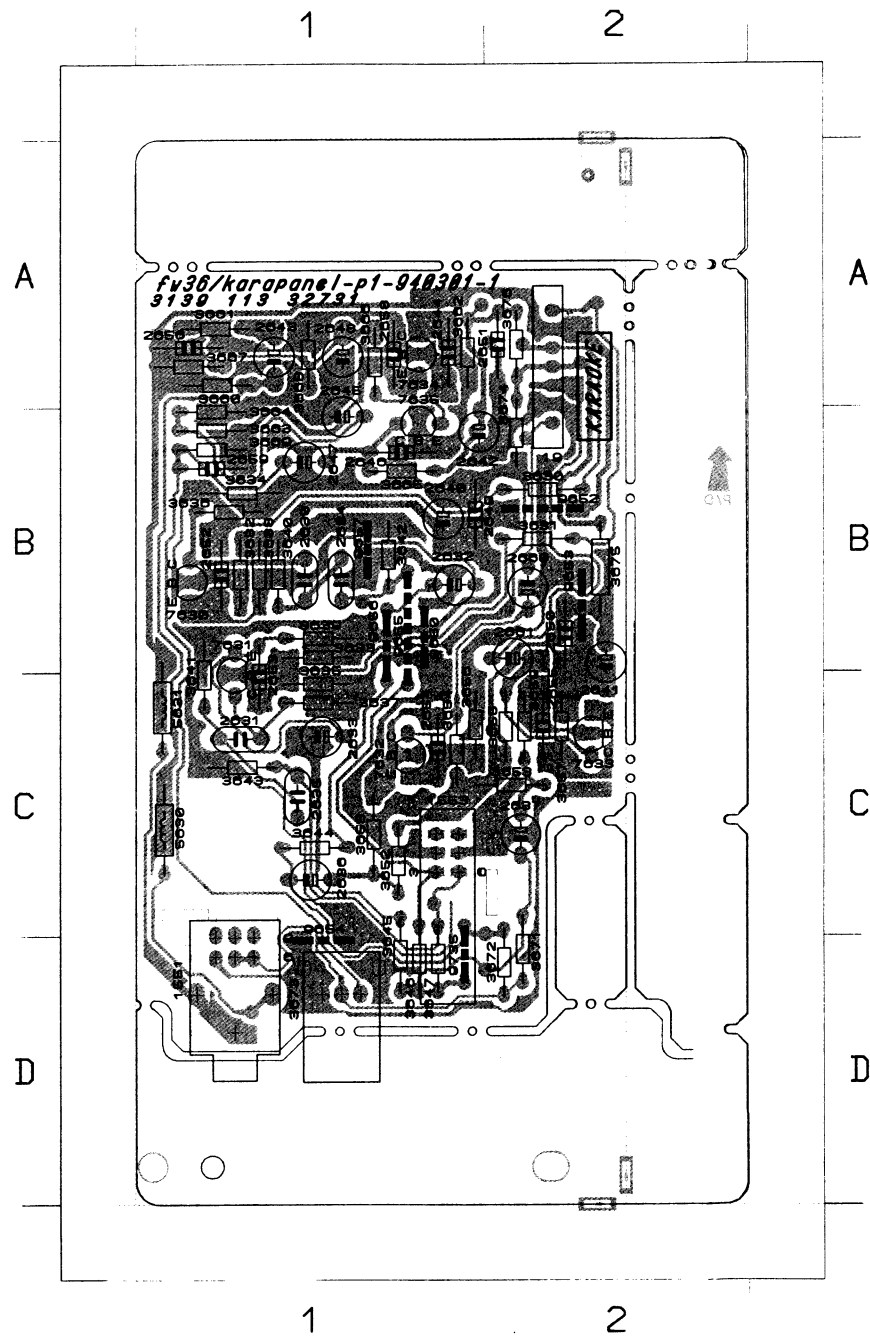
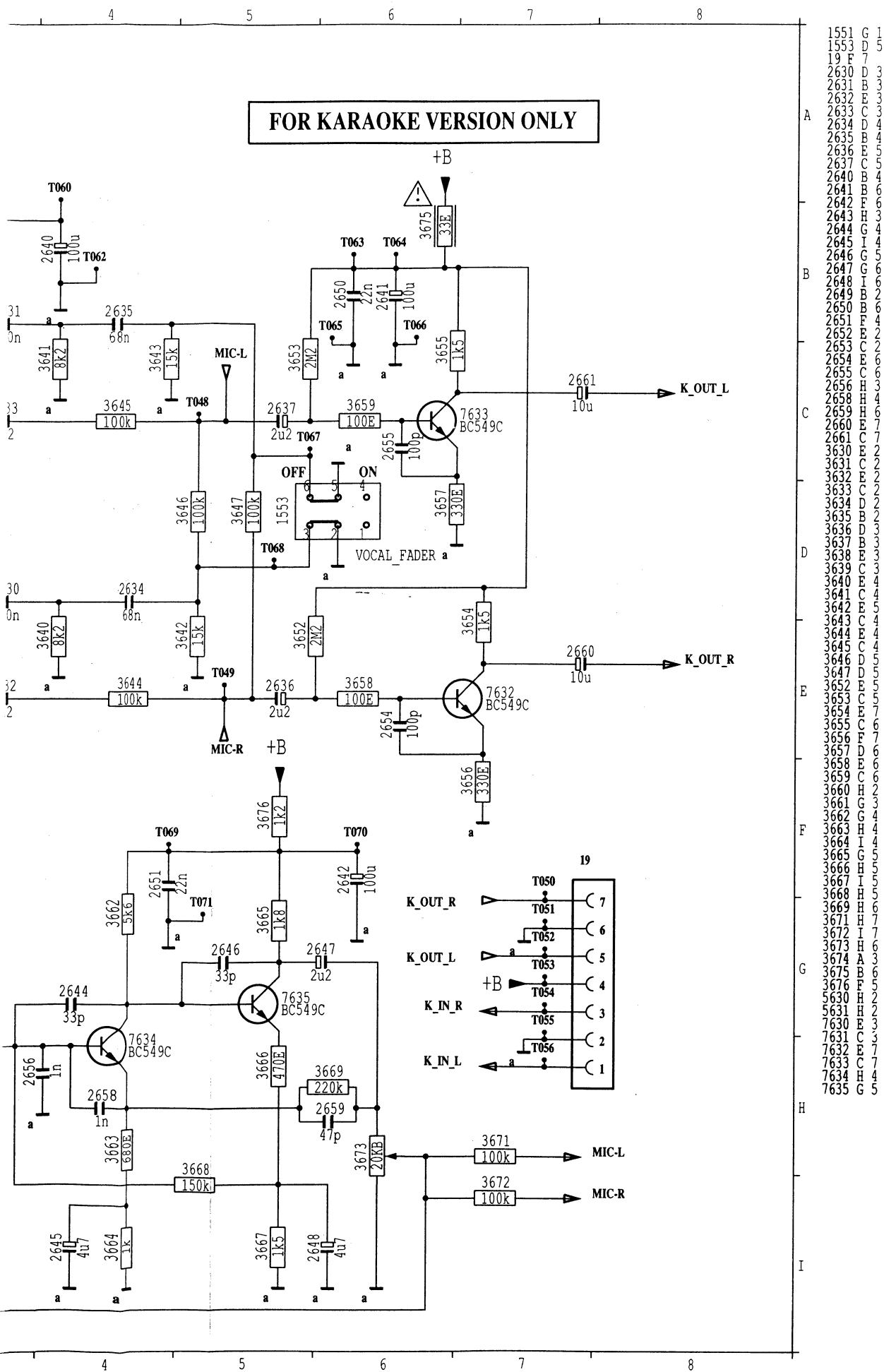


KARAOKE CIRCUIT



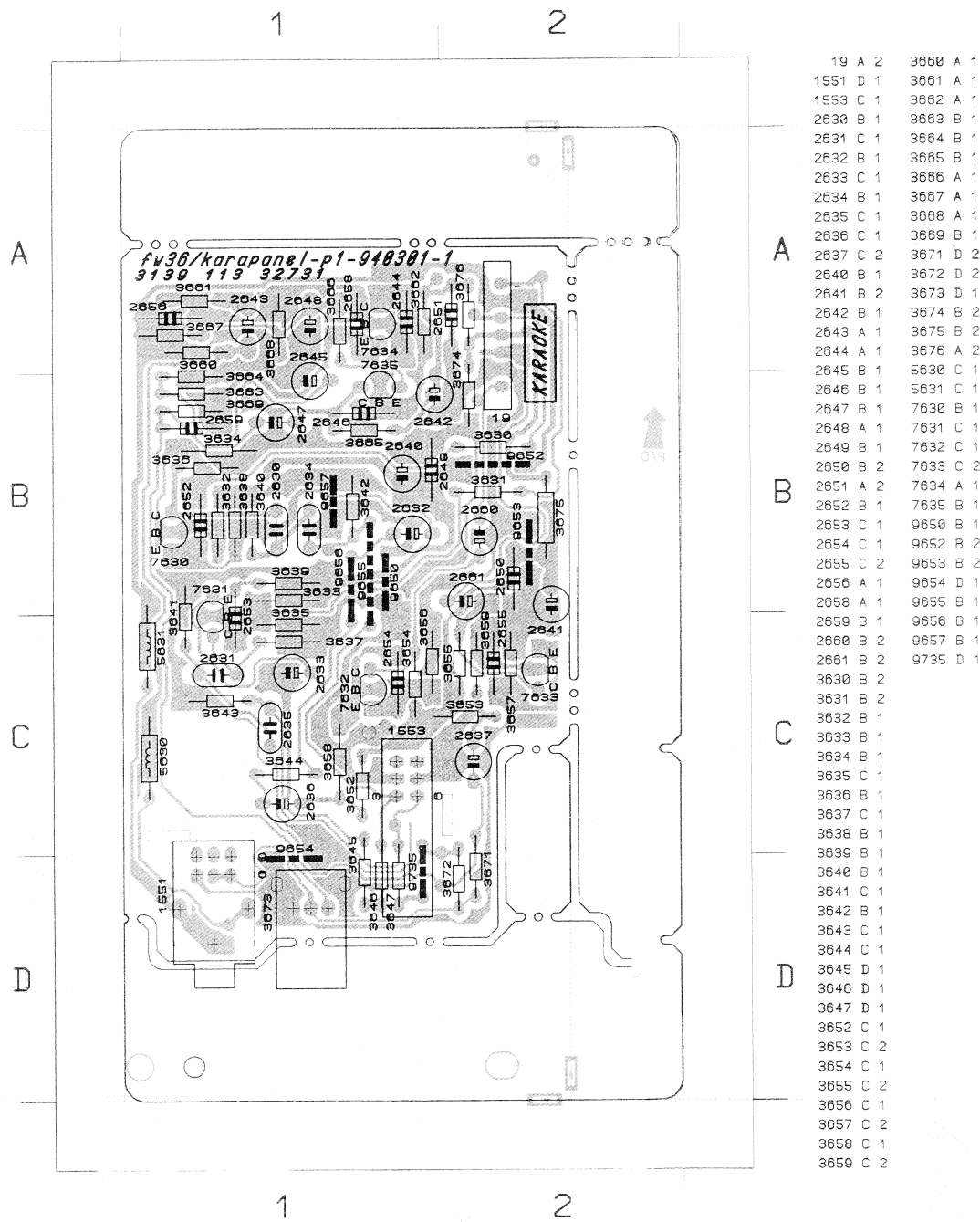
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KARAOKE LAYOUT

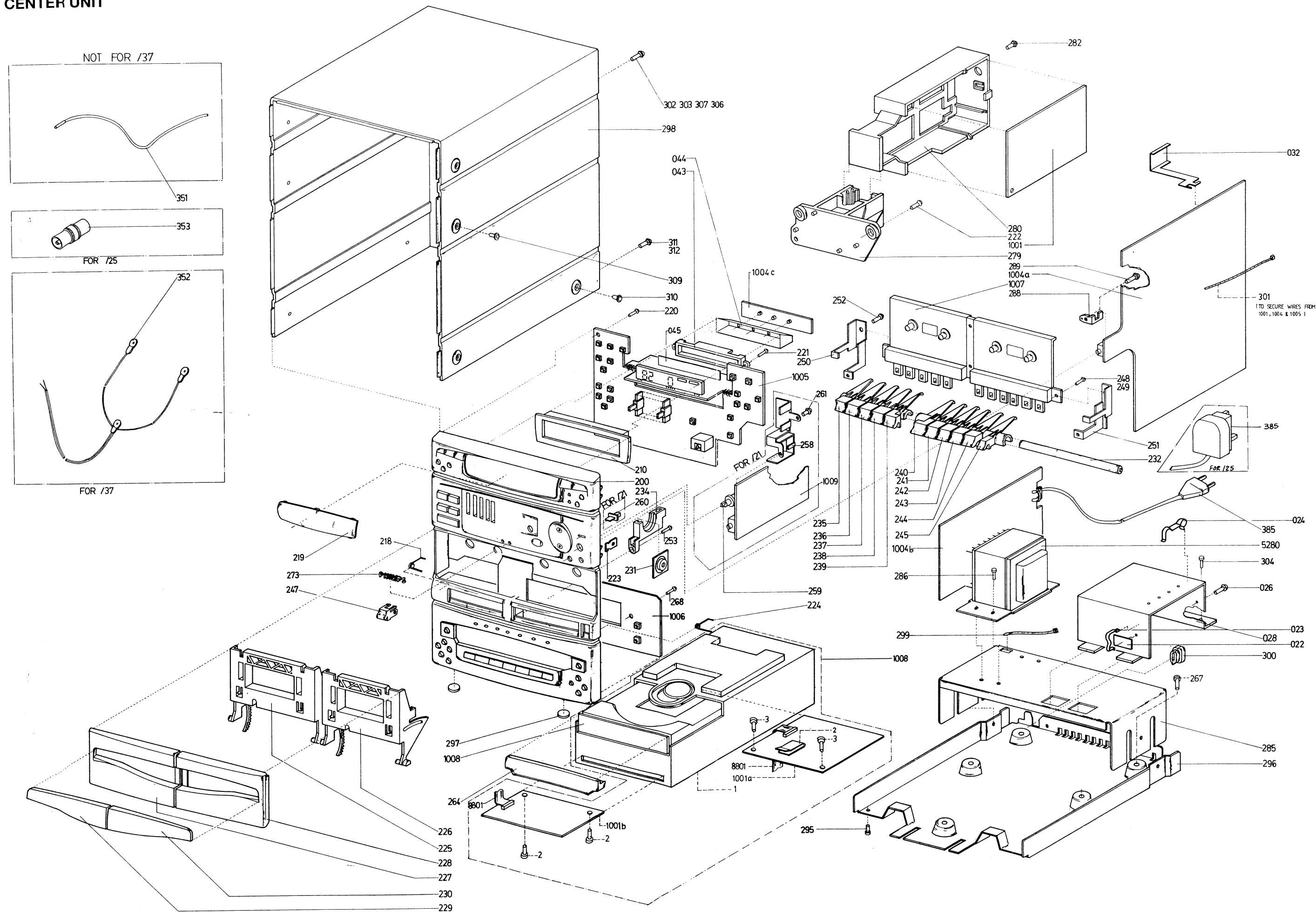


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2636	C	1	3669	B	1
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2644	A	1	3676	A	2
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2646	B	1	5631	C	1
2647	B	1	7630	B	1
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2649	B	1	7632	C	1
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2655	C	2	9653	B	2
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2660	B	2	9657	B	1
2661	B	2	9735	D	1

KARAOKE LAYOUT



CENTER UNIT



SCREWS LIST

- 026 D2.9 x 13
220 D3 x 10
221 D3 x 10
222 D3 x 10
248 D3 x 10

249 D3 x 10
252 M3 x 6
253 M3 x 6
261 D3 x 10
267 M3 x 6

268 D3 x 8
281 D3 x 10
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289 D3 x 8

295 M3 x 6
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306 D3 x 10

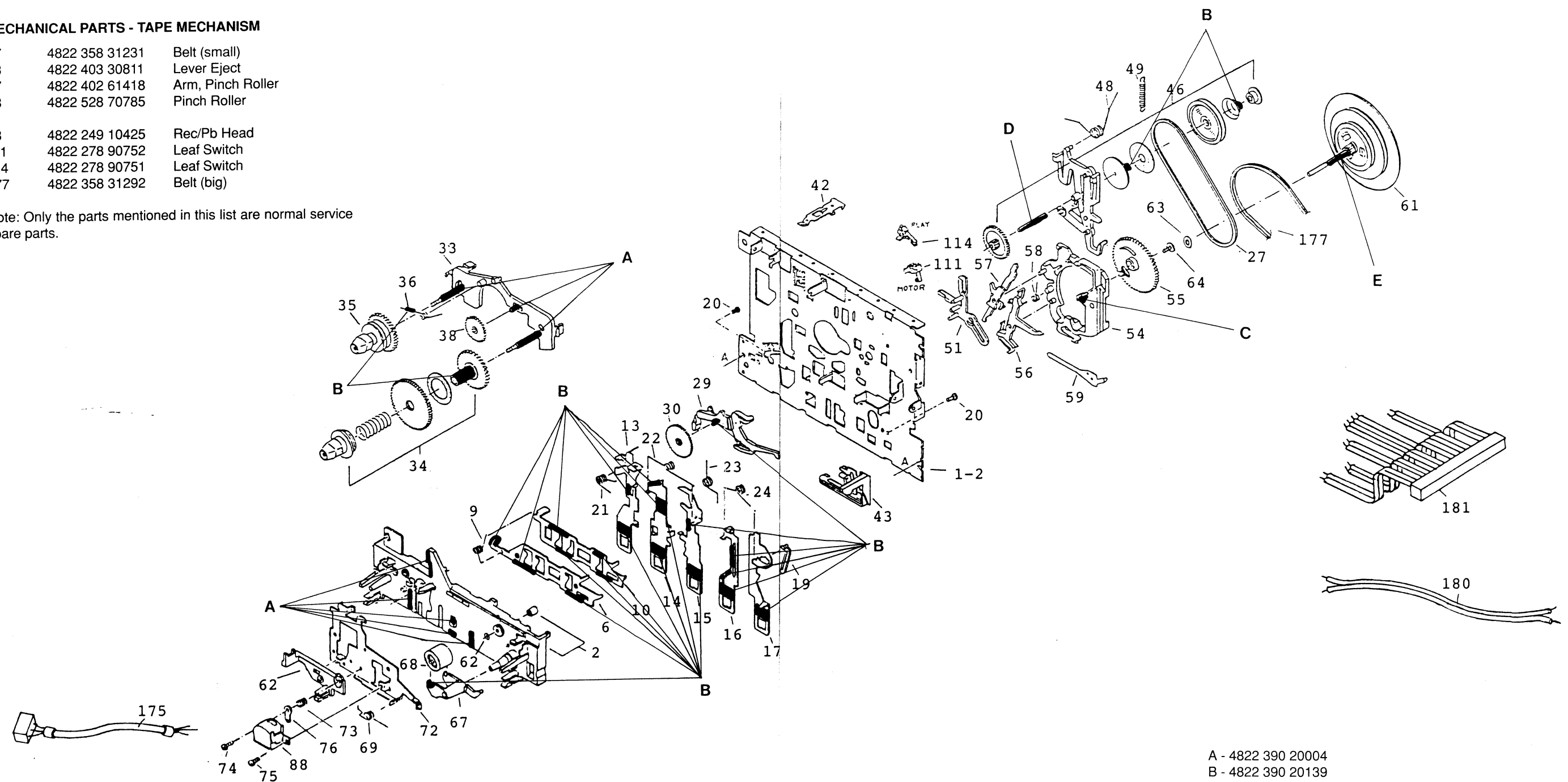
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309 M3 x 6
310 M3 x 6
311 M3 x 6
312 M3 x 6

PLAYBACK MECHANISM (A MECHA)

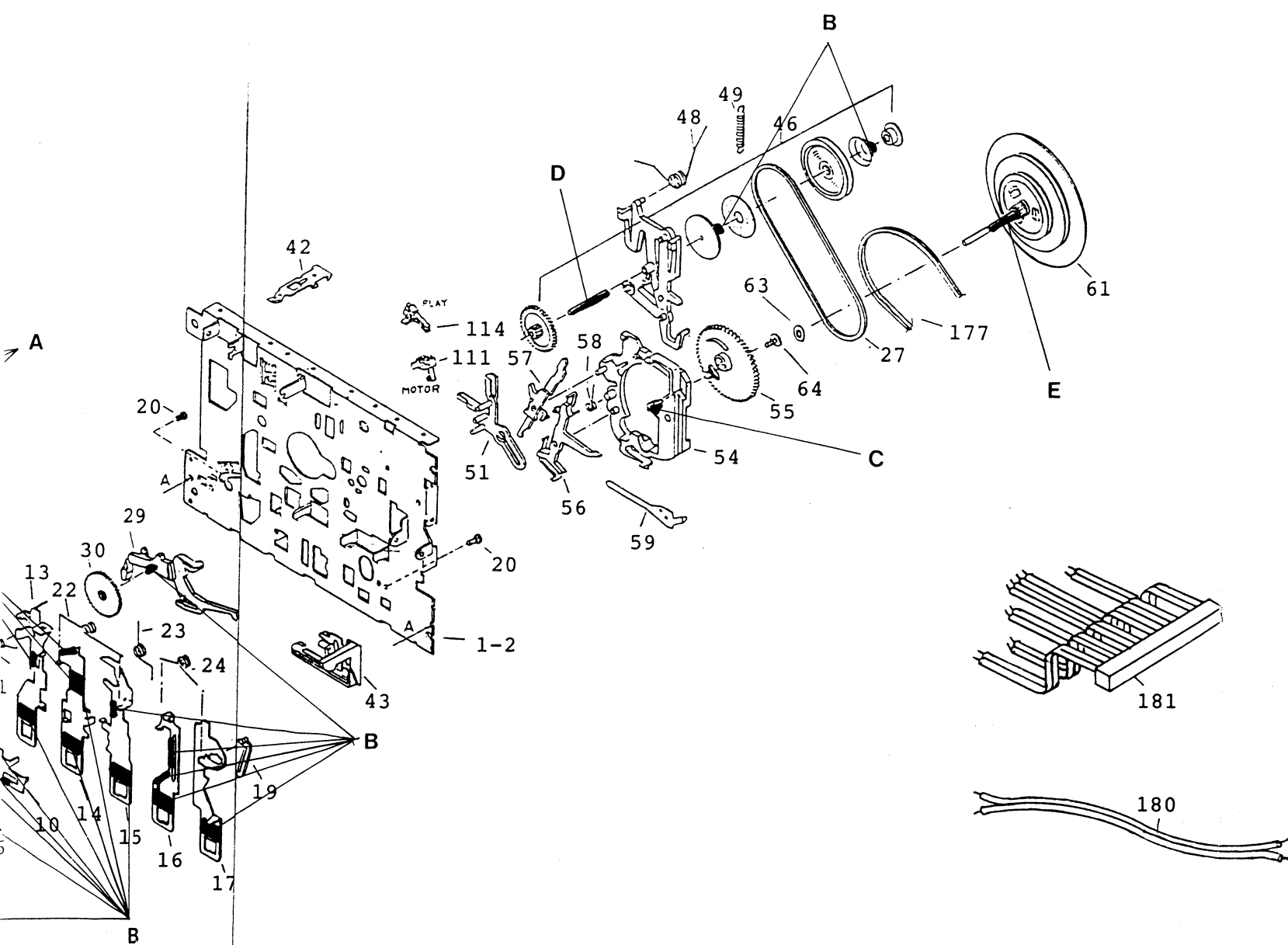
MECHANICAL PARTS - TAPE MECHANISM

27	4822 358 31231	Belt (small)
43	4822 403 30811	Lever Eject
67	4822 402 61418	Arm, Pinch Roller
68	4822 528 70785	Pinch Roller
88	4822 249 10425	Rec/Pb Head
111	4822 278 90752	Leaf Switch
114	4822 278 90751	Leaf Switch
177	4822 358 31292	Belt (big)

Note: Only the parts mentioned in this list are normal service spare parts.

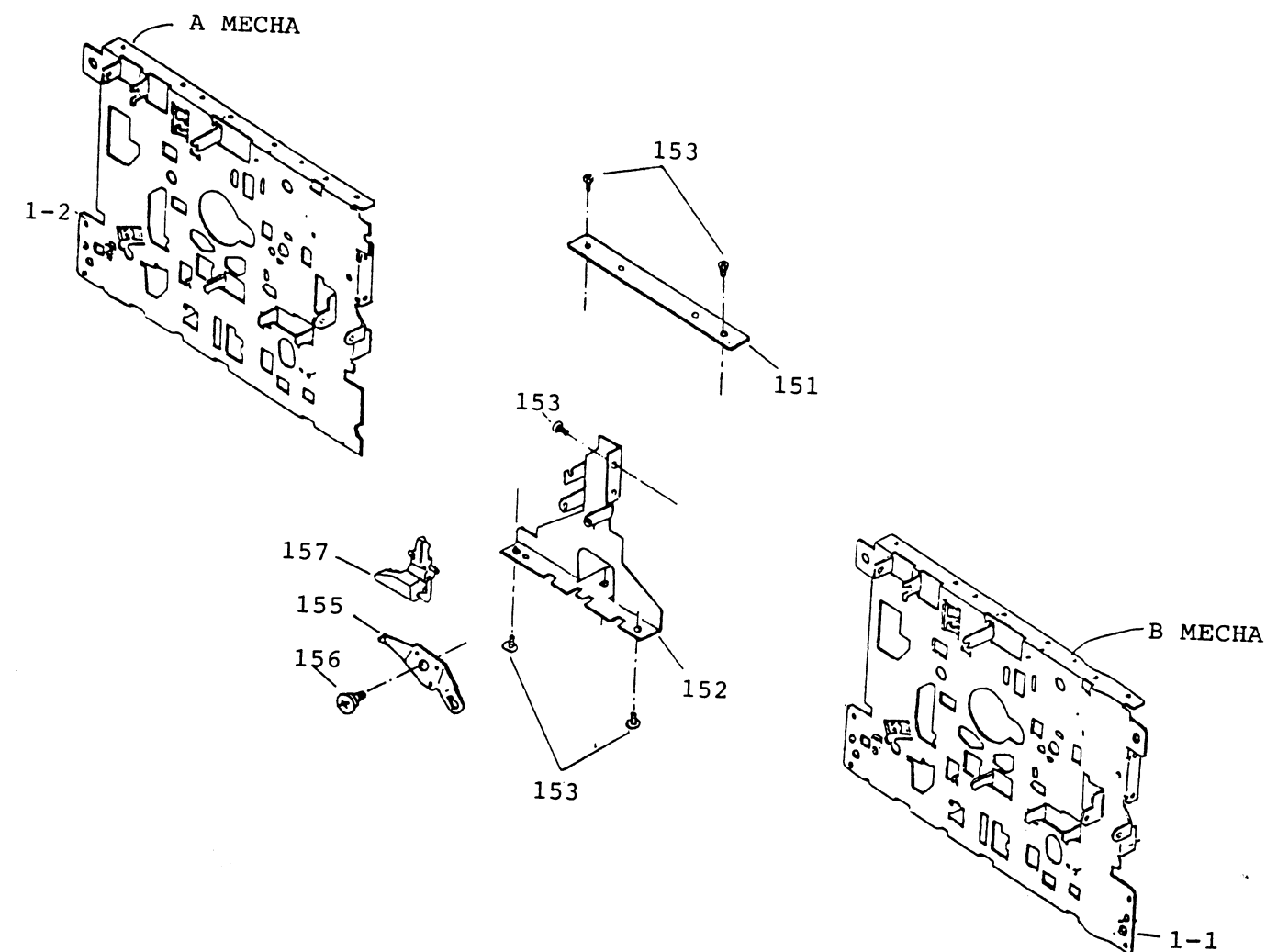


- A - 4822 390 20004
- B - 4822 390 20139
- C - 4822 390 20139
- D - 5322 390 10096
- E - 5322 390 10096
- F - GLUE



- A - 4822 390 20004
 B - 4822 390 20139
 C - 4822 390 20139
 D - 5322 390 10096
 E - 5322 390 10096
 F - GLUE

PLAYBACK & REC/PB MECHANISM



SCREW LIST - TAPE MECHANISM

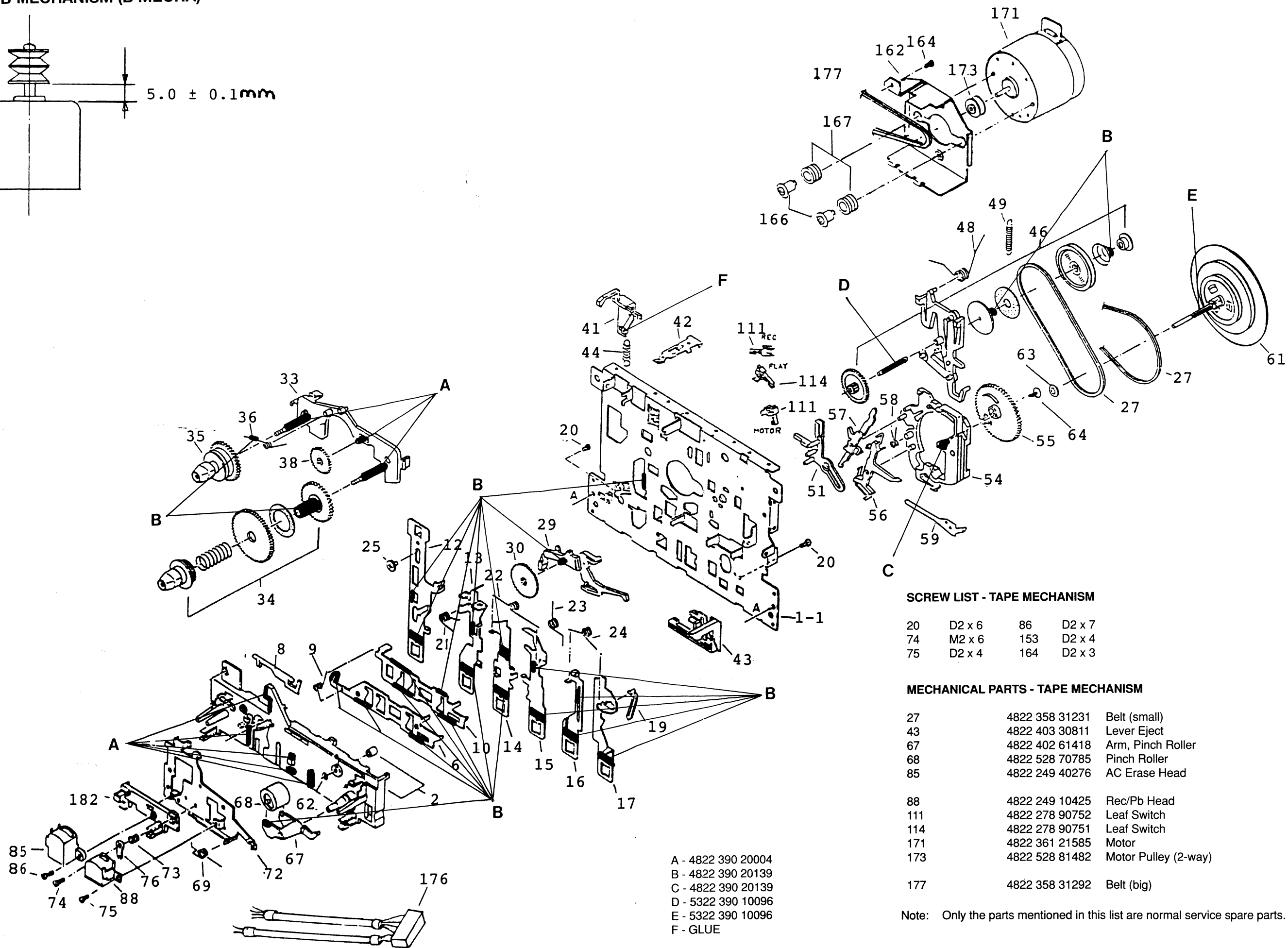
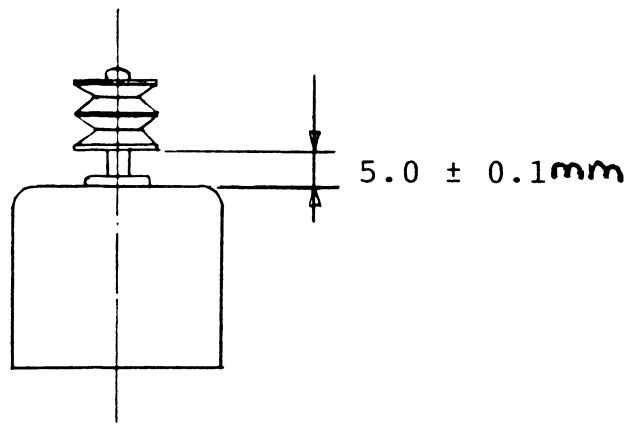
20	D2 x 6
74	M2 x 6
75	D2 x 4
86	D2 x 7
153	D2 x 4
164	D2 x 3

MECHANICAL PARTS - TAPE MECHANISM

A Mecha	4822 691 20924	Playback Mechanism
B Mecha	4822 691 20925	Record/Playback mechanism
1007	4822 691 20909	Complete Tape Mechanism YSW47-501

Note: Only the parts mentioned in this list are normal service spare parts.

REC/PB MECHANISM (B MECHA)



SCREW LIST -

100	M2 x 5
101	M1.7 x
102	D2.6 x
103	D2 x 6
104	D2 x 8
105	D2.6 x
106	M2.6 x
107	M2.6 x
108	M2 x 3
109	M2 x 4
110	D1.7 x
111	M2 x 4

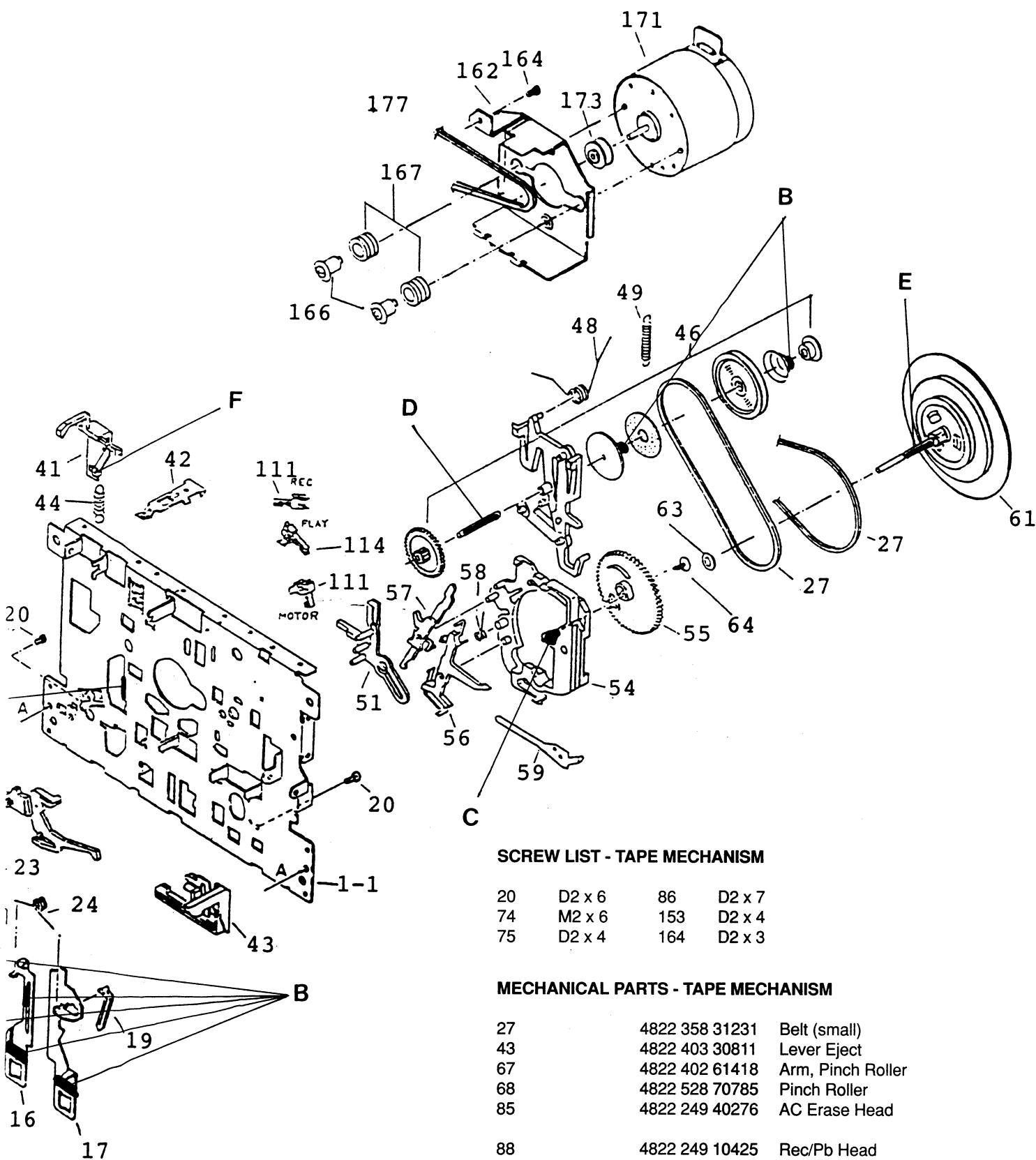
SCREW LIST - TAPE MECHANISM

20	D2 x 6	86	D2 x 7
74	M2 x 6	153	D2 x 4
75	D2 x 4	164	D2 x 3

MECHANICAL PARTS - TAPE MECHANISM

27	4822 358 31231	Belt (small)
43	4822 403 30811	Lever Eject
67	4822 402 61418	Arm, Pinch Roller
68	4822 528 70785	Pinch Roller
85	4822 249 40276	AC Erase Head
88	4822 249 10425	Rec/Pb Head
111	4822 278 90752	Leaf Switch
114	4822 278 90751	Leaf Switch
171	4822 361 21585	Motor
173	4822 528 81482	Motor Pulley (2-way)
177	4822 358 31292	Belt (big)

Note: Only the parts mentioned in this list are normal service spare parts.



SCREW LIST - TAPE MECHANISM

20	D2 x 6	86	D2 x 7
74	M2 x 6	153	D2 x 4
75	D2 x 4	164	D2 x 3

MECHANICAL PARTS - TAPE MECHANISM

27	4822 358 31231	Belt (small)
43	4822 403 30811	Lever Eject
67	4822 402 61418	Arm, Pinch Roller
68	4822 528 70785	Pinch Roller
85	4822 249 40276	AC Erase Head
88	4822 249 10425	Rec/Pb Head
111	4822 278 90752	Leaf Switch
114	4822 278 90751	Leaf Switch
171	4822 361 21585	Motor
173	4822 528 81482	Motor Pulley (2-way)

177	4822 358 31292	Belt (big)
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Note: Only the parts mentioned in this list are normal service spare parts.

A - 4822 390 20004
B - 4822 390 20139
C - 4822 390 20139
D - 5322 390 10096
E - 5322 390 10096
F - GLUE

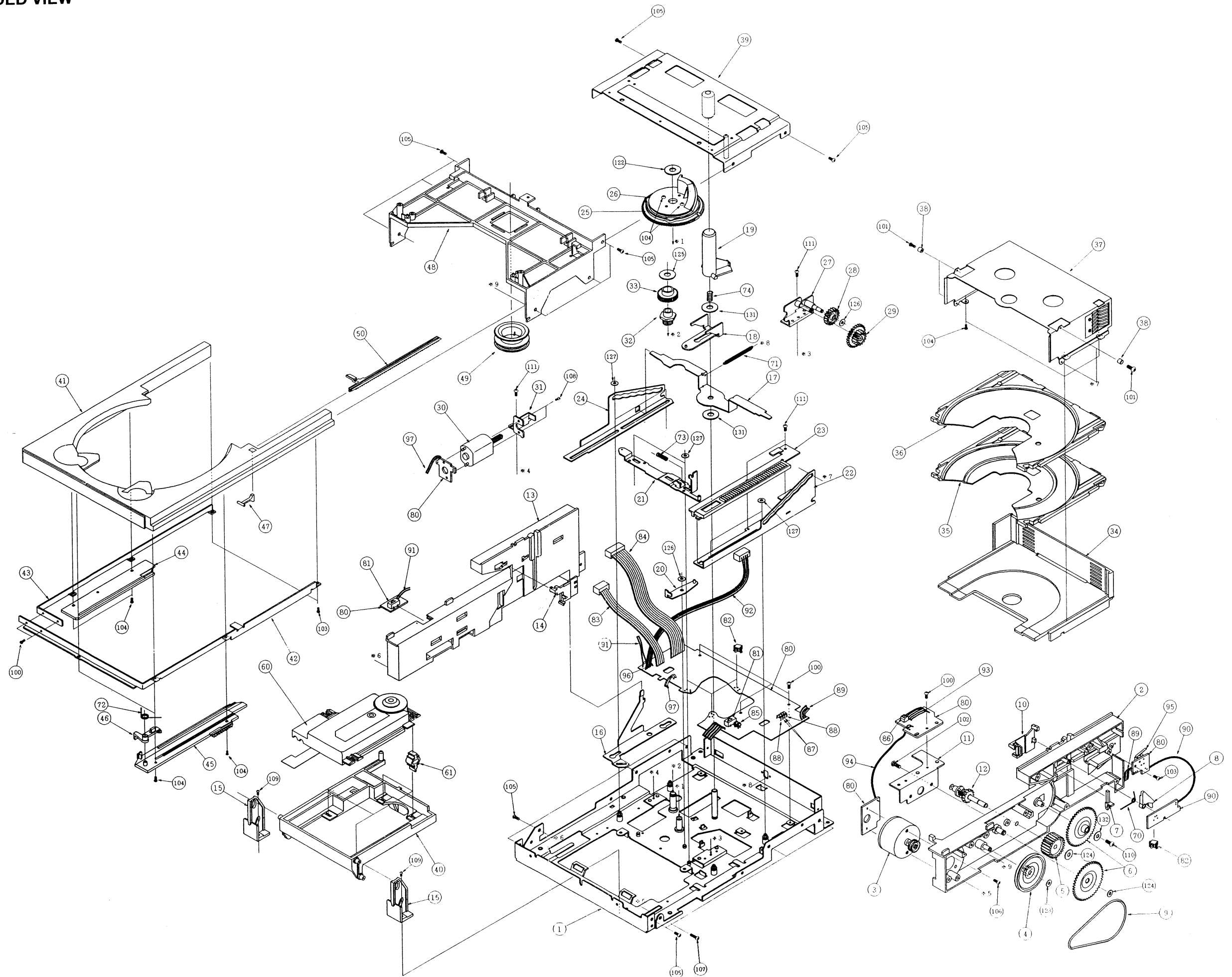
SCREW LIST - CDC UNIT

100	M2 x 5
101	M1.7 x 5
102	D2.6 x 8
103	D2 x 6
104	D2 x 8
105	D2.6 x 12
106	M2.6 x 5
107	M2.6 x 12
108	M2 x 3
109	M2 x 4
110	D1.7 x 4
111	M2 x 4

MECHANICAL PARTS - CDC MECHANISM

3	4822 361 21725	Motor assy R
4	4822 528 70861	Pulley gear
5	4822 522 33484	Change gear
6	4822 522 33483	Gear
9	4822 358 10148	Belt
12	4822 522 20457	Crutch assy
16	4822 402 50316	Carriage lever
17	4822 402 50315	Stocker arm
18	4822 402 61542	Lock pin cam assy
20	4822 402 61536	Arm change assy
21	4822 402 50314	Lever change assy
22	4822 402 61537	Stocker lever R
23	4822 522 33485	Stocker gear
24	4822 402 61538	Stocker lever L
25	4822 522 33479	Cam gear
26	4822 522 33478	Cam B
28	4822 522 33482	Gear
29	4822 522 33481	Gear
30	4822 361 21726	Motor assy F
32	4822 522 33476	Gear
33	4822 522 33477	Gear H
35	4822 466 93397	Carriage S
36	4822 466 93398	Carriage
38	4822 532 12282	Stocker Shaft
41	4822 444 30489	Tray
45	4822 466 93396	Tray plate R
46	4822 402 61539	Lock arm
47	4822 402 61541	Latch lever
49	4822 532 61255	Clamper assy
50	4822 535 93488	Shuttle
60	4822 691 30278	CD mech CDM12.1
61	4822 325 50215	Suspension
70	4822 492 42713	Spring
71	4822 492 33459	Spring
72	4822 492 42714	Spring C
73	4822 492 33461	Spring A
74	4822 492 52407	Spring D
81	4822 271 30845	Switch
82	4822 271 30847	Switch
85	4822 130 91369	Sensor
86	4822 130 91368	Sensor
87	4822 117 11343	470Ω 0.25W
88	4822 117 11344	47k 0.25W
95	4822 271 30846	Switch
122	4822 532 52591	Washer
123	4822 532 52588	Washer
124	4822 532 52589	Washer
125	4822 532 52585	Washer
126	4822 532 52586	Washer
127	4822 532 52587	Washer
131	4822 532 52465	Washer

CDC EXPLODED VIEW

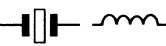


ELECTRICAL PARTS - ECO4VA MIDI BOARD (except /22)

MISCELLANEOUS		
1101	4822 267 10283	Socket IEC 75Ω
1104	4822 267 31505	Antenna socket 300Ω
		
2100	4822 122 33195	100pF 10% 50V
2104	4822 122 33195	100pF 10% 50V
2107	5322 122 34123	1nF 10% 50V
2110	5322 122 32659	33pF 5% 50V for LW version
2110	5322 122 32269	6.8pF 5% 50V
2112	4822 122 33496	100nF 10% 63V
2114	5322 122 32531	100pF 5% 50V for LW version
2115	4822 125 60101	Trimmer 3-11pF 100V
2120	5322 122 32268	470pF 10% 50V
2121	5322 122 32481	15pF 5% 50V
2122	5322 122 34123	1nF 10% 50V
2123	5322 122 34123	1nF 10% 50V
2124	4822 121 51387	10nF 20% 16V
2129	4822 121 43705	390pF 1% 160V for LW version
2130	4822 125 50355	Trimmer 4.2-20pF 100V
2133	4822 122 33128	15nF 10% 63V for LW version
2134	4822 122 33197	1nF 10% 50V
2135	4822 121 70245	560pF 1% 160V
2138	5322 122 32659	33pF 5% 50V for 2-band version
2139	4822 122 33891	3.3nF 10% 63V for LW version
2141	4822 124 40244	2.2μF 20% 63V
2142	4822 124 40242	1μF 20% 63V
2143	4822 124 40239	0.47μF 20% 63V
2144	4822 124 40239	0.47μF 20% 63V
2145	4822 122 33496	100nF 10% 63V for LW version
2146	5322 122 33063	2.2pF 5% 50V for LW version
2147	4822 122 33177	10nF 20% 50V
2150	4822 124 40248	10μF 20% 63V
2151	4822 124 40248	10μF 20% 63V
2154	4822 122 33893	18nF 10% 63V
2154	4822 122 32541	27nF 10% 63V for USA version
2155	4822 122 33893	18nF 10% 63V
2155	4822 122 32541	27nF 10% 63V for USA version
2160	4822 124 40242	1μF 20% 63V
2161	4822 124 40242	1μF 20% 63V
2167	4822 122 33496	100nF 10% 63V
2169	5322 122 31863	330pF 5% 50V

		
2170	4822 126 11714	4.7nF 20%
2171	5322 126 10223	4.7nF 10% 63V
2172	4822 124 41631	1.5μF 50V
2173	4822 124 40433	47μF 20% 25V
2177	4822 126 12882	100nF +80-20% 50V for LW version
2178	4822 122 33197	1nF 10% 50V
2179	4822 122 33195	100pF 10% 50V
2180	5322 122 31946	27pF 10% 50V
2181	4822 122 32139	12pF 2% 63V
2183	4822 122 33496	100nF 10% 63V
2184	4822 124 41584	100μF 20% 10V
2185	4822 122 33496	100nF 10% 63V
2186	5322 122 34123	1nF 10% 50V
		
3106	4822 051 20104	100k 5% 0.1W
3107	4822 051 20222	2k2 5% 0.1W for LW version
3108	4822 051 20104	100k 5% 0.1W
3109	4822 051 20222	2k2 5% 0.1W for LW version
3112	4822 116 52176	10Ω 5% 0.5W
3116	4822 051 20335	3M3 5% 0.1W for LW version
3119	4822 116 52224	470Ω 5% 0.5W
3120	4822 116 52289	5k6 5% 0.5W
3121	4822 051 20104	100k 5% 0.1W
3122	4822 051 20471	470Ω 5% 0.1W
3123	4822 051 20223	22k 5% 0.1W
3124	4822 116 52256	2k2 5% 0.5W for LW version
3125	4822 051 20472	4k7 5% 0.1W for LW version
3128	4822 117 10833	10k 1% 0.1W
3129	4822 051 20472	4k7 5% 0.1W for LW version
3132	4822 116 52283	4k7 5% 0.5W
3141	4822 116 52215	220Ω 5% 0.5W
3142	4822 051 20222	2k2 5% 0.1W
3144	4822 117 10833	10k 1% 0.1W
3147	4822 051 20184	180k 5% 0.1W
3148	4822 100 11163	Trimmer 100k 30% 0.1W
3149	4822 051 20563	56k 5% 0.1W
3151	4822 116 52243	1k5 5% 0.5W
3156	4822 116 52233	10k 5% 0.5W
3157	4822 051 20273	27k 5% 0.1W
3158	4822 051 20189	18Ω 5% 0.1W for LW version
3159	4822 051 20563	56k 5% 0.1W
3162	4822 050 11002	1k 1% 0.4W

		
3163	4822 050 11002	1k 1% 0.4W
3167	4822 051 20008	0Ω Jumper (0805)
3170	4822 116 52283	4k7 5% 0.5W
3171	4822 051 20101	100Ω 5% 0.1W
3172	4822 051 20472	4k7 5% 0.1W
3173	4822 116 52244	15k 5% 0.5W
3174	4822 116 52233	10k 5% 0.5W
3175	4822 051 20104	100k 5% 0.1W
3176	4822 051 20101	100Ω 5% 0.1W
3177	4822 116 52233	10k 5% 0.5W for LW version
3183	4822 051 20223	22k 5% 0.1W
3184	4822 051 20223	22k 5% 0.1W
3186	4822 051 20104	100k 5% 0.1W
3188	4822 051 10102	1k 2% 0.25W
3189	4822 116 52249	1k8 5% 0.5W
3190	4822 116 52249	1k8 5% 0.5W
3191	4822 116 52249	1k8 5% 0.5W
3192	4822 116 52249	1k8 5% 0.5W
3193	4822 116 52256	2k2 5% 0.5W
3194	4822 116 52219	330Ω 5% 0.5W for 2-band version
3195	4822 116 52219	330Ω 5% 0.5W
3197	4822 116 52219	330Ω 5% 0.5W
3206	4822 116 52215	220Ω 5% 0.5W
3211	4822 051 10008	0Ω 5% 0.25W
3212	4822 051 10008	0Ω 5% 0.25W
3213	4822 051 10008	0Ω 5% 0.25W
3222	4822 051 20008	0Ω Jumper (0805) for 2-band version
3223	4822 051 20008	0Ω Jumper (0805) for LW version
3224	4822 051 20008	0Ω Jumper (0805)
3226	4822 051 20008	0Ω Jumper (0805) for 2-band version
3228	4822 051 10008	0Ω 5% 0.25W
3229	4822 051 20008	0Ω Jumper (0805) for 2-band version
3231	4822 051 20008	0Ω Jumper (0805)
3233	4822 051 20008	0Ω Jumper (0805)
3235	4822 051 20008	0Ω Jumper (0805)
3237	4822 051 10008	0Ω 5% 0.25W
3238	4822 051 20008	0Ω Jumper (0805) for LW version
3240	4822 051 10479	47Ω 2% 0.25W
3241	4822 051 20008	0Ω Jumper (0805) for 2-band version
3242	4822 051 10008	0Ω 5% 0.25W
3243	4822 051 20008	0Ω Jumper (0805) for 2-band version
3244	4822 051 20008	0Ω Jumper (0805)
3245	4822 051 20008	0Ω Jumper (0805) for 2-band version

		
3246	4822 051 10008	0Ω 5% 0.25W
3247	4822 051 10008	0Ω 5% 0.25W
3248	4822 051 10008	0Ω 5% 0.25W
		
5105	4822 158 60641	MW/LW Antenna for LW version
5106	4822 158 60642	MW Antenna for 2-band version
5109	4822 156 30947	RF Coil 1.5 T
5120	4822 156 30947	RF Coil 1.5 T
5122	4822 157 60517	Osc. Coil LW for LW version
5123	4822 157 60517	Osc. Coil MW
5125	4822 157 61898	0.47μH for 2-band version
5140	4822 158 60511	AM-IF Filter 450kHz
5142	4822 157 70302	AM-IF Filter 450kHz
5143	4822 242 70665	Ceramic Filter 10.7MHz
5144	4822 242 70665	Ceramic Filter 10.7MHz
5145	4822 242 81362	Ceramic Discriminator
5170	4822 242 72976	Ceramic Resonator 7.2MHz
		
6105	4822 130 83075	HN1V02H
6109	4822 130 82833	1SV228
6121	4822 130 30621	1N4148 (refer to circuit)
6122	4822 130 30621	1N4148 (refer to circuit)
6123	4822 130 30621	1N4148 (refer to circuit)
6124	4822 130 82833	1SV228
6140	4822 130 30621	1N4148
6154	4822 130 30621	1N4148
6174	4822 130 34233	BZX79-B5V1
		
7102	5322 130 42136	BC848C for LW version
7104	5322 130 42136	BC848C for LW version
7105	4822 130 60093	2SA838B
7120	4822 130 60163	2SC1047
7121	5322 130 42136	BC848C for LW version
7123	5322 130 42136	BC848C for LW version
7128	5322 130 42136	BC848C for LW version
7140	4822 209 32701	TEA5712T/N2 (RF IC)
7168	5322 130 41983	BC858B
7170	5322 130 42136	BC848C
7171	5322 130 42136	BC848C
7172	5322 209 11517	MM74HCU04M Inverter
7173	4822 209 31998	LC7218M (Synthesizer)
7179	5322 130 42136	BC848C for LW version

Note: Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS - TUNER 92 BOARD (For /22 only)

MISCELLANEOUS

1101	4822 210 10492	Tuner unit FE415-G11
1110	4822 267 10283	FM Antenna socket



2101	5322 122 34099	470pF 10% 63V
2102	5322 122 32268	470pF 10% 50V
2103	4822 124 40433	47μF 20% 25V
2104	4822 121 42408	220nF 5% 63V
2105	5322 122 32654	22nF 10% 63V
2108	5322 122 32654	22nF 10% 63V
2109	5322 122 32654	22nF 10% 63V
2110	5322 122 32654	22nF 10% 63V
2111	4822 122 32927	220nF +80-20% 50V
2112	5322 122 32654	22nF 10% 63V
2113	5322 122 32661	56pF 5% 50V
2114	5322 124 41431	22μF 20% 35V
2115	4822 124 40239	0.47μF 20% 63V
2116	5322 121 42386	100nF 5% 63V
2117	4822 122 33336	8.2nF 10% 50V
2118	4822 122 33336	8.2nF 10% 50V
2119	4822 124 40244	2.2μF 20% 63V
2120	4822 124 40244	2.2μF 20% 63V
2121	4822 124 40196	220μF 20% 16V
2123	4822 124 40246	4.7μF 20% 63V
2124	4822 124 40246	4.7μF 20% 63V
2125	4822 122 33177	10nF 20% 50V
2126	4822 122 31782	15nF 10% 50V
2127	5322 122 31863	330pF 5% 50V
2128	5322 116 80853	560pF 5% 63V
2129	4822 124 40242	1μF 20% 63V
2131	4822 124 40248	10μF 20% 63V
2142	4822 125 60102	Trimmer 5.2-30pF 100V
2144	4822 121 42408	220nF 5% 63V
2145	4822 121 51263	510pF 1% 400V
2146	4822 121 70082	430pF 1% 400V
2147	5322 122 32654	22nF 10% 63V
2148	5322 122 32452	47pF 5% 63V
2149	4822 122 33177	10nF 20% 50V
2150	5322 122 32654	22nF 10% 63V
2151	5322 122 34099	470pF 10% 63V
2152	4822 124 40242	1μF 20% 63V
2153	5322 122 34099	470pF 10% 63V
2154	5322 122 32481	15pF 5% 50V
2155	5322 122 32965	18pF 5% 50V
2156	4822 124 40433	47μF 20% 25V
2158	5322 126 10223	4.7nF 10% 63V
2159	5322 126 10223	4.7nF 10% 63V
2160	4822 124 41631	1.5μF 50V
2161	4822 122 32927	220nF +80-20% 50V
2162	4822 126 11585	22nF +80-20% 25V
2188	5322 122 32654	22nF 10% 63V



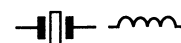
2193	4822 125 60102	Trimmer 5.2-30pF 100V
2194	4822 125 60101	Trimmer 3-11pF 100V
2195	5322 122 33861	120pF 10% 50V
2196	5322 122 32448	10pF 5% 50V
2210	4822 124 41643	100μF 20% 16V
2215	5322 122 32268	470pF 10% 50V
2216	5322 122 32268	470pF 10% 50V
2221	5322 122 32268	470pF 10% 50V
2224	4822 122 33575	220pF 5% 50V
2225	4822 122 33575	220pF 5% 50V



3101	4822 052 10478	Δ 4Ω 7 5% 0.33W
3102	4822 051 20224	220k 5% 0.1W
3104	4822 051 20154	150k 5% 0.1W
3105	4822 051 20562	5k6 5% 0.1W
3106	4822 051 20829	82Ω 5% 0.1W
3107	4822 051 20008	0Ω Jumper (0805)
3113	4822 050 22201	Δ 220Ω 1% 0.6W
3114	4822 051 20332	3k3 5% 0.1W
3115	4822 051 20391	390Ω 5% 0.1W
3116	4822 051 20478	4Ω 7 5% 0.1W
3117	4822 051 20331	330Ω 5% 0.1W
3118	4822 050 22201	Δ 220Ω 1% 0.6W
3120	4822 052 10229	Δ 22Ω 5% 0.33W
3121	4822 051 20272	2k7 5% 0.1W
3122	4822 051 20562	5k6 5% 0.1W
3123	4822 051 20223	22k 5% 0.1W
3124	4822 117 10833	10k 1% 0.1W
3125	4822 100 11213	Trimmer 22k 30% 0.1W
3126	4822 051 20123	12k 5% 0.1W
3127	4822 051 20182	1k8 5% 0.1W
3128	4822 051 20182	1k8 5% 0.1W
3129	4822 051 20822	8k2 5% 0.1W
3130	4822 116 52283	4k7 5% 0.5W
3131	4822 100 11319	Trimmer 4k7 30% 0.1W
3132	4822 117 10833	18k 1% 0.1W
3133	4822 051 20008	0Ω Jumper (0805)
3134	4822 116 52289	5k6 5% 0.5W
3135	4822 051 10008	0Ω 5% 0.25W
3137	4822 116 52283	4k7 5% 0.5W
3138	4822 116 83922	Δ 150Ω 5% 1W
3139	4822 051 20008	0Ω Jumper (0805)
3141	4822 051 20472	4k7 5% 0.1W
3142	4822 051 20472	4k7 5% 0.1W
3143	4822 051 20821	820Ω 5% 0.1W
3144	4822 051 20331	330Ω 5% 0.1W
3145	4822 051 20271	270Ω 5% 0.1W
3147	4822 116 52289	5k6 5% 0.5W
3148	4822 051 20104	100k 5% 0.1W
3149	4822 051 20472	4k7 5% 0.1W



3150	4822 050 25601	560Ω 1% 0.6W
3151	4822 116 52283	4k7 5% 0.5W
3152	4822 117 10833	10k 1% 0.1W
3153	4822 051 20274	270k 5% 0.1W
3155	4822 050 22201	Δ 220Ω 1% 0.6W
3156	4822 051 20153	15k 5% 0.1W
3157	4822 051 20472	4k7 5% 0.1W
3158	4822 116 52283	4k7 5% 0.5W
3159	4822 051 20104	100k 5% 0.1W
3160	4822 051 20104	100k 5% 0.1W
3162	4822 050 22701	Δ 270Ω 1% 0.6W
3163	4822 117 10833	10k 1% 0.1W
3164	4822 051 10473	47k 2% 0.25W
3165	4822 050 11002	1k 1% 0.4W
3166	4822 050 11002	1k 1% 0.4W
3167	4822 050 11002	1k 1% 0.4W
3168	4822 051 20008	0Ω Jumper (0805)
3170	4822 117 10833	10k 1% 0.1W
3171	4822 051 20223	22k 5% 0.1W
3172	4822 051 20472	4k7 5% 0.1W
3173	4822 051 20223	22k 5% 0.1W
3190	4822 051 20479	47Ω 5% 0.1W
3194	4822 051 20472	4k7 5% 0.1W
3196	4822 051 20008	0Ω Jumper (0805)
3197	4822 051 20008	0Ω Jumper (0805)
3198	4822 117 10833	10k 1% 0.1W
3200	4822 051 20008	0Ω Jumper (0805)
3201	4822 051 20472	4k7 5% 0.1W
3202	4822 051 20008	0Ω Jumper (0805)
3223	4822 051 20474	470k 5% 0.1W
3225	4822 050 11002	1k 1% 0.4W
3229	4822 051 20008	0Ω Jumper (0805)
3233	4822 051 10102	1k 2% 0.25W
3236	4822 051 20008	0Ω Jumper (0805)
3238	4822 051 20008	0Ω Jumper (0805)
3239	4822 051 20274	270k 5% 0.1W
3240	4822 051 20472	4k7 5% 0.1W



5103	4822 242 72342	Ceramic filter 10.7MHz
5104	4822 157 63029	IF coil AM
5105	4822 157 63904	Q Detection coil
5106	4822 157 71044	Birdy coil
5108	4822 157 63912	AM osc
5110	4822 242 71878	Ceramic filter 450kHz
5111	4822 242 81248	Ceramic resonator 19kHz
5112	4822 242 72976	Crystal resonator 7.2MHz
5113	4822 242 72342	Ceramic filter 10.7MHz
5114	4822 157 51503	560μH 10%
5127	4822 158 60643	Ferroceptor



6101	4822 130 34174	BZX79-C4V7
6102	4822 130 83075	HN1V02H
6110	4822 130 30621	1N4148



7103	4822 209 31001	LA1851N
7104	5322 130 60068	BC558C
7105	4822 209 30178	LC7218
7106	4822 130 41327	BC327-40
7107	5322 130 41982	BC848B
7108	4822 130 44196	BC548C
7109	4822 130 44196	BC548C
7111	5322 130 41982	BC848B
7112	4822 130 60163	2SC1047
7113	4822 130 44196	BC548C
7114	4822 130 40937	BC548B
7115	4822 130 41024	BF245B
7116	4822 130 60163	2SC1047
7125	4822 130 44197	BC558B
7151	4822 130 60163	2SC1047

Note: Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS - CDC BOARD

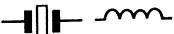
MISCELLANEOUS		
1830	4822 071 51601	Fuse T160mA 250V
1850	4822 267 60383	Flex socket 24P
1852	4822 267 60383	Flex socket 24P
8801	4822 321 62522	Flex cable 24P
		
2752	5322 122 32531	100pF 5% 50V
2763	5322 122 32658	22pF 5% 50V
2764	5322 122 32658	22pF 5% 50V
2769	4822 124 40246	4.7μF 20% 63V
2770	4822 124 40246	4.7μF 20% 63V
2802	4822 124 40242	1μF 20% 63V
2803	4822 122 33515	82pF 5% 63V
2804	4822 122 33515	82pF 5% 63V
2805	5322 122 33538	150pF 2% 63V
2806	5322 122 31946	27pF 10% 50V
2807	5322 122 32452	47pF 5% 63V
2808	5322 122 32452	47pF 5% 63V
2809	5322 122 32452	47pF 5% 63V
2810	5322 122 32481	15pF 5% 50V
2811	5322 122 33538	150pF 2% 63V
2814	4822 122 33175	2.2nF 20% 50V
2818	4822 124 40433	47μF 20% 25V
2820	4822 122 33173	560pF 10% 50V
2821	4822 126 10326	180pF 5% 63V
2822	5322 122 31863	330pF 5% 50V
2823	5322 122 31865	1.5nF 10% 63V
2824	4822 126 10326	180pF 5% 63V
2825	4822 122 33575	220pF 5% 50V
2826	4822 122 33575	220pF 5% 50V
2827	4822 122 33575	220pF 5% 50V
2828	4822 122 33575	220pF 5% 50V
2829	4822 122 33575	220pF 5% 50V
2830	4822 122 33575	220pF 5% 50V
2831	4822 124 40433	47μF 20% 25V
2833	5322 124 41431	22μF 20% 35V
2834	5322 122 32654	22nF 10% 63V
2836	4822 122 32646	5.6nF 10% 50V
2837	4822 122 33173	560pF 10% 50V
2838	4822 122 31947	100nF 20% 63V
2839	4822 122 33177	10nF 20% 50V
2840	4822 122 33219	1.8nF 10% 50V
2843	4822 124 40239	0.47μF 20% 63V
2844	5322 122 32531	100pF 5% 50V
2846	4822 122 31947	100nF 20% 63V
2847	4822 124 40433	47μF 20% 25V
2848	4822 124 40433	47μF 20% 25V
2849	4822 124 40433	47μF 20% 25V
2850	4822 124 40246	4.7μF 20% 63V
2851	4822 122 33336	8.2nF 10% 50V
2852	4822 122 31947	100nF 20% 63V

		
2853	4822 122 31947	100nF 20% 63V
2854	5322 122 32531	100pF 5% 50V
2855	4822 122 31947	100nF 20% 63V
2856	5322 121 42661	330nF 5% 63V
2857	5322 122 32452	47pF 5% 63V
2858	5322 122 32654	22nF 10% 63V
2859	4822 122 31947	100nF 20% 63V
2860	4822 124 40433	47μF 20% 25V
2861	5322 122 32452	47pF 5% 63V
2862	5322 122 32452	47pF 5% 63V
2863 #	4822 122 31947	100nF 20% 63V
2864 #	4822 124 40433	47μF 20% 25V
2865 #	4822 124 40433	47μF 20% 25V
2866	4822 124 41997	470μF 10V
2867	4822 122 31947	100nF 20% 63V
2868 #	5322 122 34123	1nF 10% 50V
2869 #	5322 122 34123	1nF 10% 50V
2876	5322 122 34123	1nF 10% 50V
2877	5322 122 34123	1nF 10% 50V
2878	5322 122 32531	100pF 5% 50V
2879	5322 122 32531	100pF 5% 50V
2881	4822 124 40433	47μF 20% 25V
2882	4822 124 41643	100μF 20% 16V
2883	4822 122 31947	100nF 20% 63V
2886	5322 122 32531	100pF 5% 50V
2891	4822 122 31947	100nF 20% 63V
2892	4822 124 40433	47μF 20% 25V
2893	5322 122 32531	100pF 5% 50V
2894	5322 122 32531	100pF 5% 50V
2895	5322 122 32531	100pF 5% 50V
2896	4822 124 40433	47μF 20% 25V
2897	4822 122 33173	560pF 10% 50V
2898	4822 122 33173	560pF 10% 50V
2899	4822 124 40433	47μF 20% 25V
		
3751	4822 051 20331	330Ω 5% 0.1W
3752	4822 051 20221	220Ω 5% 0.1W
3755	4822 117 10833	10k 1% 0.1W
3760	4822 050 11002	1k 1% 0.4W
3761	4822 050 11002	1k 1% 0.4W
3762	4822 051 20221	220Ω 5% 0.1W
3763	4822 051 20221	220Ω 5% 0.1W
3764	4822 051 20221	220Ω 5% 0.1W
3781	4822 051 20479	47Ω 5% 0.1W
3782	4822 051 20472	4k7 5% 0.1W
3783	4822 117 10833	10k 1% 0.1W
3784	4822 117 10833	10k 1% 0.1W
3785	4822 117 10833	10k 1% 0.1W
3786	4822 117 10833	10k 1% 0.1W
3787	4822 117 10833	10k 1% 0.1W

		
3788	4822 117 10833	10k 1% 0.1W
3789	4822 117 10833	10k 1% 0.1W
3790	4822 117 10833	10k 1% 0.1W
3791 *	4822 117 10833	10k 1% 0.1W
3792 #	4822 117 10833	10k 1% 0.1W
3793	4822 117 10833	10k 1% 0.1W
3794	4822 117 10833	10k 1% 0.1W
3795	4822 117 10833	10k 1% 0.1W
3796	4822 117 10833	10k 1% 0.1W
3797	4822 117 10833	10k 1% 0.1W
3798	4822 117 10833	10k 1% 0.1W
3799	4822 117 10833	10k 1% 0.1W
3801	4822 116 52224	470Ω 5% 0.5W
3802	4822 051 10102	1k 2% 0.25W
3803	4822 051 20335	3M3 5% 0.1W
3804	4822 051 20682	6k8 5% 0.1W
3805	4822 051 20223	22k 5% 0.1W
3806	4822 117 10833	10k 1% 0.1W
3807	4822 117 10833	10k 1% 0.1W
3808	4822 117 10834	47k 1% 0.1W
3809	4822 051 20332	3k3 5% 0.1W
3810	4822 051 20332	3k3 5% 0.1W
3811	4822 051 20223	22k 5% 0.1W
3812	4822 051 20332	3k3 5% 0.1W
3813	4822 051 20332	3k3 5% 0.1W
3814	4822 051 20332	3k3 5% 0.1W
3815	4822 050 11002	1k 1% 0.4W
3816 #	4822 117 10833	10k 1% 0.1W
3816	4822 051 20103	10k 5% 0.1W
3817	4822 051 20221	220Ω 5% 0.1W
3818	4822 116 52233	10k 5% 0.5W
3820	4822 050 11002	1k 1% 0.4W
3821	4822 051 20124	120k 5% 0.1W
3822	4822 051 20563	56k 5% 0.1W
3823	4822 051 20331	330Ω 5% 0.1W
3824	4822 051 20124	120k 5% 0.1W
3825	4822 116 52233	10k 5% 0.5W
3826	4822 116 52233	10k 5% 0.5W
3827	4822 116 52233	10k 5% 0.5W
3828	4822 116 52233	10k 5% 0.5W
3829	4822 116 52233	10k 5% 0.5W
3830	4822 116 52233	10k 5% 0.5W
3831	4822 051 20224	220k 5% 0.1W
3832	4822 052 10478	4Ω7 5% 0.33W
3833	4822 117 10833	10k 1% 0.1W
3834	4822 052 10478	4Ω7 5% 0.33W
3835	4822 116 52264	27k 5% 0.5W
3836	4822 051 20122	1k2 5% 0.1W
3837	4822 051 20682	6k8 5% 0.1W
3838	4822 116 52257	22k 5% 0.5W
3839	4822 051 20122	1k2 5% 0.1W
3840	4822 051 20682	6k8 5% 0.1W

		
3841 #	4822 051 20333	33k 5% 0.1W
3841	4822 051 20393	39k 5% 0.1W
3842	4822 051 10102	1k 2% 0.25W
3843	4822 051 20333	33k 5% 0.1W
3844	4822 051 10102	1k 2% 0.25W
3845	4822 051 20333	33k 5% 0.1W
3846	4822 051 10102	1k 2% 0.25W
3847	4822 052 10228 Δ	2Ω2 5% 0.33W
3848	4822 050 11002	1k 1% 0.4W
3849	4822 052 10478 Δ	4Ω7 5% 0.33W
3850	4822 051 10102	1k 2% 0.25W
3851	4822 116 52264	27k 5% 0.5W
3852	4822 051 10102	1k 2% 0.25W
3853	4822 051 20822	8k2 5% 0.1W
3855	4822 051 20224	220k 5% 0.1W
3856	4822 051 20223	22k 5% 0.1W
3857	4822 051 20221	220Ω 5% 0.1W
3858	4822 051 20221	220Ω 5% 0.1W
3860	4822 052 10478	4Ω7 5% 0.33W
3862	4822 051 20105	1M 5% 0.1W
3863	4822 050 11002	1k 1% 0.4W
3864	4822 050 11002	1k 1% 0.4W
3865	4822 050 11002	1k 1% 0.4W
3866	4822 051 20331	330Ω 5% 0.1W
3867 #	4822 052 10479	47Ω 5% 0.33W
3868	4822 052 10479	47Ω 5% 0.33W
3871	4822 052 10478 Δ	4Ω7 5% 0.33W
3872	4822 117 10833	10k 1% 0.1W
3876	4822 117 10834	47k 1% 0.1W
3877	4822 117 10834	47k 1% 0.1W
3878	4822 051 20472	4k7 5% 0.1W
3879	4822 051 20472	4k7 5% 0.1W
3880	4822 051 10102	1k 2% 0.25W
3881	4822 051 10102	1k 2% 0.25W
3885	4822 050 11002	1k 1% 0.4W
3886	4822 116 52226	560Ω 5% 0.5W
3887	4822 051 20223	22k 5% 0.1W
3889	4822 117 10833	10k 1% 0.1W
3890	4822 050 11002	1k 1% 0.4W
3891	4822 052 10478 Δ	4Ω7 5% 0.33W
3892	4822 117 10833	10k 1% 0.1W
3893	4822 117 10833	10k 1% 0.1W
3894	4822 117 10833	10k 1% 0.1W
3895 #	4822 051 20273	27k 5% 0.1W
3895	4822 051 20333	33k 5% 0.1W
3896	4822 051 10102	1k 2% 0.25W
3899	4822 052 10478 Δ	4Ω7 5% 0.33W
9870	4822 051 20008	0Ω 0 Jumper (0805)
9880	4822 051 10008	0Ω 5% 0.25W
9881	4822 051 10008	0Ω 5% 0.25W

For Bitstream versions only
* For Non-bitstream versions only

		
9882	4822 051 10008	0Ω 5% 0.25W
9883	4822 051 10008	0Ω 5% 0.25W
9884	4822 051 10008	0Ω 5% 0.25W
9885	4822 051 10008	0Ω 5% 0.25W
		
5860	4822 242 81151	Crystal 16.9334MHz
5861	5322 242 73697	Ceramic resonator 8MHz
5890	4822 242 73557	Resonator 8.467MHz
		
6857	5322 130 30684	1N4002GP
6858	5322 130 30684	1N4002GP
6881	4822 130 31981	BZX79-C3V9
6883	5322 130 34563	BZX79-C2V7
		
7800	4822 209 30704	MC74HCU04D
7820	5322 130 44779	BC338-40
7830	4822 209 33407	TMP87CC70
7850	4822 209 31064	TDA1301T/N1
7851	4822 209 32852	TDA7073A/N2
7852	4822 209 32852	TDA7073A/N2
7853	4822 209 32852	TDA7073A/N2
7856	4822 130 41715	BC328-40
7860	4822 209 33339	SAA7345GP/M5
7870 #	4822 209 33252	TDA1549T/N1
7872 *	4822 209 32421	TDA1311A/N2
7881	5322 130 60068	BC558C
7883	5322 130 60068	BC558C
7884	4822 130 40855	BC337
7885	4822 130 40855	BC337
7886	4822 209 80891	MC7805CT

For Bitstream versions only
 * For Non-bitstream versions only

Note: Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS - CDC KEY BOARD

MISCELLANEOUS		
1450	4822 276 13114	Tact Switch
1451	4822 276 13114	Tact Switch
1452	4822 276 13114	Tact Switch
1453	4822 276 13114	Tact Switch
1454	4822 276 13114	Tact Switch
1455	4822 276 13114	Tact Switch
1456	4822 276 13114	Tact Switch
1457	4822 276 13114	Tact Switch
1458	4822 276 13114	Tact Switch
1459	4822 276 13114	Tact Switch
1460	4822 276 13114	Tact Switch
1461	4822 276 13114	Tact Switch
1462	4822 276 13114	Tact Switch
1463	4822 276 13114	Tact Switch
1464	4822 276 13114	Tact Switch
1465	4822 276 13114	Tact Switch
1484	4822 276 13114	Tact Switch
1485	4822 276 13114	Tact Switch
		
2464	4822 126 12787	330pF 10% 50V
2465	4822 126 12787	330pF 10% 50V
		
3450	4822 116 52219	330Ω 5% 0.5W
3451	4822 116 52219	330Ω 5% 0.5W
3452	4822 116 52219	330Ω 5% 0.5W
3453	4822 116 52219	330Ω 5% 0.5W
3454	4822 116 52219	330Ω 5% 0.5W
3455	4822 116 52219	330Ω 5% 0.5W
3456	4822 116 52219	330Ω 5% 0.5W
3457	4822 116 52219	330Ω 5% 0.5W
3458	4822 116 52219	330Ω 5% 0.5W
3459	4822 116 52219	330Ω 5% 0.5W
3460	4822 116 52219	330Ω 5% 0.5W
3461	4822 116 52219	330Ω 5% 0.5W
3462	4822 116 52219	330Ω 5% 0.5W
3463	4822 116 52219	330Ω 5% 0.5W
3464	4822 116 52234	100k 5% 0.5W
3465	4822 116 52234	100k 5% 0.5W
3467	4822 116 52234	100k 5% 0.5W
		
6450	4822 130 30621	1N4148
6451	4822 130 30621	1N4148
6452	4822 130 30621	1N4148
6453	4822 130 30621	1N4148
6458	4822 130 30621	1N4148

		
6459	4822 130 82978	LTL-16KPE(red)
6460	4822 130 83363	LTL-16KGE(grn)
6461	4822 130 82978	LTL-16KPE(red)
6462	4822 130 83363	LTL-16KGE(grn)
6463	4822 130 82978	LTL-16KPE(red)
6464	4822 130 83363	LTL-16KGE(grn)
6465	4822 130 82978	LTL-16KPE(red)
6466	4822 130 82978	LTL-16KPE(red)
6467	4822 130 83363	LTL-16KGE(grn)
6468	4822 130 82978	LTL-16KPE(red)
6469	4822 130 83363	LTL-16KGE(grn)
6470	4822 130 82978	LTL-16KPE(red)
6471	4822 130 83363	LTL-16KGE(grn)
6472	4822 130 83363	LTL-16KGE(grn)
6473	4822 130 30621	1N4148
6474	4822 130 30621	1N4148
6475	4822 130 30621	1N4148
		
7450	4822 130 40937	BC548B
7495	5322 209 71555	74HC373D
7496	5322 209 71555	74HC373D
7498	5322 209 10421	HEF4094BP

Note: Only the parts mentioned in this list are normal service spare parts

ELECTRICAL PARTS - FRONT BOARD

MISCELLANEOUS		
1401	4822 130 91315	LCD Display
1401	4822 130 91319	LCD Display for FW36/37
1410	4822 276 13114	Tact Switch (except /37)
1411	4822 276 13114	Tact Switch
1412	4822 276 13114	Tact Switch
1413	4822 276 13114	Tact Switch
1414	4822 276 13114	Tact Switch
1415	4822 276 13114	Tact Switch
1416	4822 276 13114	Tact Switch
1417	4822 276 13114	Tact Switch
1418	4822 276 13114	Tact Switch
1419	4822 276 13114	Tact Switch
1420	4822 276 13114	Tact Switch
1421	4822 276 13114	Tact Switch
1422	4822 276 13114	Tact Switch
1423	4822 276 13114	Tact Switch
1424	4822 276 13114	Tact Switch
1425	4822 276 13114	Tact Switch
1426	4822 276 13114	Tact Switch
1427	4822 276 13114	Tact Switch
1428	4822 276 13114	Tact Switch
1429	4822 276 13114	Tact Switch
		
2401	4822 124 22225	330μF 20% 16V
2402	4822 124 80818	22mF 5.5V
2403	4822 124 23176	22μF 20% 16V
2405	4822 126 11585	22nF +80-20% 25V
2410	4822 124 22403	10μF 20% 16V
2401	5322 121 42386	100nF 20% 63V
2413	4822 122 33191	22pF 5% 50V
2414	4822 122 33191	22pF 5% 50V
2415	4822 121 51387	10nF 20% 16V
2417	4822 122 33849	150pF 10% 50V
2418	4822 122 33069	33pF 5% 50V
2424	4822 126 12787	330pF 10% 50V
2513	4822 121 51252	470nF 5% 63V
2514	4822 121 51252	470nF 5% 63V
2515	4822 126 12147	22nF 10% 25V
2516	4822 126 12147	22nF 10% 25V
2517	4822 122 10575	8.2nF 20% 16V
2518	4822 122 10575	8.2nF 20% 16V
2519	4822 122 10576	1.8nF 10% 16V
2520	4822 122 10576	1.8nF 10% 16V
2521	4822 121 51252	470nF 5% 63V
2522	4822 121 51252	470nF 5% 63V
2523	4822 126 12147	22nF 10% 25V
2524	4822 126 12147	22nF 10% 25V
2525	4822 122 10575	8.2nF 20% 16V
2526	4822 122 10575	8.2nF 20% 16V
2527	4822 122 10576	1.8nF 10% 16V

		
2528	4822 122 10576	1.8nF 10% 16V
2529	4822 122 33169	680pF 10% 50V
2530	4822 122 33169	680pF 10% 50V
2531	4822 126 10178	820pF 10% 50V
2532	4822 126 10178	820pF 10% 50V
2533	4822 122 33195	100pF 10% 50V
2534	4822 122 33195	100pF 10% 50V
2535	4822 122 33069	33pF 5% 50V
2536	4822 122 33069	33pF 5% 50V
2537	4822 124 41643	100µF 20% 16V
2538	4822 126 11585	22nF +80-20% 25V
2539	4822 124 41643	100µF 20% 16V
2541	4822 124 40246	4.7µF 20% 63V
2542	4822 124 40246	4.7µF 20% 63V
		
3402	4822 116 52228	680Ω 5% 0.5W
3403	4822 116 52234	100k 5% 0.5W
3404	4822 116 52233	10k 5% 0.5W
3405	4822 116 52224	470Ω 5% 0.5W
3406	4822 116 52256	2k2 5% 0.5W
3407	4822 050 11002	1k 1% 0.4W
3410	4822 116 52175	100Ω 5% 0.5W
3411	4822 116 52233	10k 5% 0.5W
3412	4822 116 52233	10k 5% 0.5W
3413	4822 116 52233	10k 5% 0.5W
3414	4822 116 52233	10k 5% 0.5W
3415	4822 116 52233	10k 5% 0.5W
3416	4822 116 52233	10k 5% 0.5W
3417	4822 116 52233	10k 5% 0.5W
3418	4822 116 52233	10k 5% 0.5W
3419	4822 116 52233	10k 5% 0.5W
3420	4822 116 52233	10k 5% 0.5W
3421	4822 116 52283	4k7 5% 0.5W
3422	4822 116 52283	4k7 5% 0.5W
3423	4822 116 52283	4k7 5% 0.5W
3424	4822 116 90836	Resistor network 5 X 10k
3425	4822 116 52283	4k7 5% 0.5W
3430	4822 116 52233	10k 5% 0.5W
3431	4822 116 52233	10k 5% 0.5W
3432	4822 050 11002	1k 1% 0.4W
3433	4822 116 52233	10k 5% 0.5W
3434	4822 116 52233	10k 5% 0.5W
3435	4822 116 52233	10k 5% 0.5W
3436	4822 116 52233	10k 5% 0.5W
3445	4822 050 11002	1k 1% 0.4W
3446	4822 050 11002	1k 1% 0.4W
3447	4822 050 11002	1k 1% 0.4W
3448	4822 116 90836	Resistor network 5 X 10k
3449	4822 116 90836	Resistor network 5 X 10k
3450	4822 116 52233	10k 5% 0.5W

		
3451	4822 116 52233	10k 5% 0.5W
3452	4822 116 52233	10k 5% 0.5W
3453	4822 050 11002	1k 1% 0.4W
3456	4822 050 11002	1k 1% 0.4W
3461	4822 116 52234	100k 5% 0.5W
3462	4822 116 52219	330Ω 5% 0.5W
3463	4822 116 52234	100k 5% 0.5W
3470	4822 116 52233	10k 5% 0.5W
3501	4822 116 52256	2k2 5% 0.5W
3502	4822 116 52256	2k2 5% 0.5W
3503	4822 116 52304	82k 5% 0.5W
3504	4822 116 52304	82k 5% 0.5W
3505	4822 116 52224	470Ω 5% 0.5W
3506	4822 116 52224	470Ω 5% 0.5W
3507	4822 105 11107	Potm. slide 50k X 2
3508	4822 105 11107	Potm. slide 50k X 2
3509	4822 105 11107	Potm. slide 50k X 2
3510	4822 105 11107	Potm. slide 50k X 2
3511	4822 105 11107	Potm. slide 50k X 2
3513	4822 116 52244	15k 5% 0.5W
3514	4822 116 52244	15k 5% 0.5W
3515	4822 116 52251	18k 5% 0.5W
3516	4822 116 52251	18k 5% 0.5W
3517	4822 116 52251	18k 5% 0.5W
3518	4822 116 52251	18k 5% 0.5W
3519	4822 116 52257	22k 5% 0.5W
3520	4822 116 52257	22k 5% 0.5W
3521	4822 116 52244	15k 5% 0.5W
3522	4822 116 52244	15k 5% 0.5W
3523	4822 116 52244	15k 5% 0.5W
3524	4822 116 52244	15k 5% 0.5W
3525	4822 116 52251	18k 5% 0.5W
3526	4822 116 52251	18k 5% 0.5W
3527	4822 116 52251	18k 5% 0.5W
3528	4822 116 52251	18k 5% 0.5W
3531	4822 116 52243	1k5 5% 0.5W
3532	4822 116 52243	1k5 5% 0.5W
3533	4822 116 52243	1k5 5% 0.5W
3534	4822 116 52243	1k5 5% 0.5W
3535	4822 116 52292	560k 5% 0.5W
3536	4822 116 52292	560k 5% 0.5W
3537	4822 116 52257	22k 5% 0.5W
3538	4822 116 52257	22k 5% 0.5W
3544	4822 116 52224	470Ω 5% 0.5W
		
5401	5322 242 73697	Ceramic resonator 8MHz
5402	4822 242 70938	Crystal 32.768kHz
5403	4822 156 21721	2.2µH 20%
5405	4822 156 21721	2.2µH 20%
5406	4822 156 21721	2.2µH 20%

		
5407	4822 156 21721	2.2µH 20%
5408	4822 156 21721	2.2µH 20%
5409	4822 156 21721	2.2µH 20%
5420	4822 157 52983	22µH 10%
		
6401	4822 130 30621	1N4148
6402	4822 130 30621	1N4148
6406	4822 214 52009	GP1U58XP
6410	4822 130 30621	1N4148
6411	4822 130 30621	1N4148
6412	4822 130 30621	1N4148
6413	4822 130 30621	1N4148
6417	4822 130 30621	1N4148
6420	4822 130 82978	LTL-16KPE
6421	4822 130 30621	1N4148
		
7401	4822 209 33354	TMP87C 20 UPC FW36
7402	4822 209 31508	ST24C01
7403	5322 209 10421	HEF4094BP
7410	4822 130 44196	BC548C
7411	4822 130 44197	BC558B
7539	4822 209 83274	NJM4560D

Note: Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS - COMBI BOARD

MISCELLANEOUS		
1281	4822 272 10269	Voltage Selector
1285	4822 071 51002	△ Fuse T1A 250V
1285	4822 253 30334	△ Fuse T1.25A 250V for /37
1286	4822 071 51002	△ Fuse T1A 250V
1286	4822 253 30334	△ Fuse T1.25A 250V for /37
1289	4822 071 55002	△ Fuse T5A 250V
1289	4822 252 51123	△ Fuse T6.3A 250V for /37
1304	4822 267 31176	Loudspeaker Socket
1494	4822 134 41171	Lamp Assy Blue for /37
1495	4822 134 41171	Lamp Assy Blue for /37
1496	4822 134 41171	Lamp Assy Blue for /37
1497	4822 134 41171	Lamp Assy Blue
1498	4822 134 41171	Lamp Assy Blue
1499	4822 134 41171	Lamp Assy Blue
1550 +	4822 267 40898	Headphone Socket
1552 +	4822 267 30631	AUX/TV Socket
		
2250	4822 121 41853	100nF 10% 100V
2251	5322 121 42386	100nF 5% 63V
2252	5322 121 42386	100nF 5% 63V
2253	4822 124 42119	4700µF 20% 25V
2254	4822 124 41397	47µF 20% 25V
2255	4822 122 33519	470pF 10% 50V
2256	4822 126 11585	22nF +80-20% 25V
2257	4822 121 41853	100nF 10% 100V
2258	5322 121 42386	100nF 5% 63V
2260	4822 124 80148	2200µF 20% 16V
2261	4822 124 41397	47µF 20% 25V
2262	4822 124 40849	330µF 20% 16V
2263	4822 124 40244	2.2µF 20% 63V
2264	5322 121 42386	100nF 5% 63V
2265	4822 124 41551	100µF 20% 25V
2266	4822 126 11585	22nF +80-20% 25V
2267	4822 124 41397	47µF 20% 25V
2269	4822 126 11592	1nF 10% 50V
2315	4822 126 12145	47nF 10% 25V
2316	4822 126 12145	47nF 10% 25V
2317	4822 124 40248	10µF 20% 63V
2318	4822 124 40248	10µF 20% 63V
2319	4822 124 41397	47µF 20% 25V
2320	4822 124 41397	47µF 20% 25V
2321	4822 126 10782	680pF 50V
2322	4822 126 10782	680pF 50V
2323	4822 126 10781	470pF 50V
2324	4822 126 10781	470pF 50V
2325 +	4822 124 41643	100µF 20% 16V
2326 +	4822 124 41643	100µF 20% 16V
2327	4822 122 33308	100pF 10% 500V

+ Not for /37



2328	4822 122 33308	△ 100pF 10% 500V
2329	5322 124 41431	22μF 20% 35V
2330	5322 124 41431	22μF 20% 35V
2333	4822 124 41397	47μF 20% 25V
2334	4822 124 41397	47μF 20% 25V
2335	4822 124 41397	47μF 20% 25V
2336	4822 124 41397	47μF 20% 25V
2337	4822 121 42408	220nF 5% 63V
2338	4822 121 42408	220nF 5% 63V
2339	4822 121 42408	220nF 5% 63V
2340	4822 121 42408	220nF 5% 63V
2350	4822 124 41551	100μF 20% 25V
2351 +	4822 126 12882	100nF +80-20% 50V
2352 +	4822 126 12882	100nF +80-20% 50V
2353 +	4822 126 12882	100nF +80-20% 50V
2355	4822 126 11592	1nF 10% 50V
2356	4822 126 11592	1nF 10% 50V
2363	5322 121 42386	100nF 5% 63V
2364	5322 121 42386	100nF 5% 63V
2365	4822 121 42408	220nF 5% 63V
2366	4822 121 42408	220nF 5% 63V
2367	4822 126 12785	47nF 50V
2368	4822 126 12785	47nF 50V
2369	4822 122 32039	100nF 20% 25V
2370	4822 122 33308	100pF 10% 500V
2501	4822 122 33195	100pF 10% 50V
2502	4822 122 33195	100pF 10% 50V
2503	4822 122 33195	100pF 10% 50V
2504	4822 122 33195	100pF 10% 50V
2505	4822 126 12148	2.7nF 10%
2506	4822 126 12148	2.7nF 10%
2507 +	4822 122 33519	470pF 10% 50V
2508 +	4822 122 33519	470pF 10% 50V
2509 +	4822 124 41398	1μF 20% 63V
2510 +	4822 124 41398	1μF 20% 63V
2511 +	4822 124 40248	10μF 20% 63V
2512 +	4822 124 40248	10μF 20% 63V
2513 +	4822 126 12148	2.7nF 10%
2514 +	4822 126 12148	2.7nF 10%
2515	4822 124 41398	1μF 20% 63V
2516	4822 124 41398	1μF 20% 63V
2517	4822 122 33195	100pF 10% 50V
2518	4822 122 33195	100pF 10% 50V
2519	4822 124 40248	10μF 20% 63V
2520	4822 124 40248	10μF 20% 63V
2521	4822 126 12145	47nF 10% 25V
2522	4822 126 12145	47nF 10% 25V
2550	4822 124 41397	47μF 20% 25V
2551	4822 121 51387	10nF 20% 16V
2552	4822 124 41643	100μF 20% 16V
2553	4822 124 40246	4.7μF 20% 63V
2554	4822 124 40248	10μF 20% 63V



2555	4822 124 41398	1μF 20% 63V
2556	4822 124 41398	1μF 20% 63V
2557	4822 124 41398	1μF 20% 63V
2558	4822 124 41398	1μF 20% 63V
2559	4822 124 40244	2.2μF 20% 63V
2560	4822 124 40244	2.2μF 20% 63V
2561	4822 126 11585	22nF +80-20% 25V
2563	4822 124 40248	10μF 20% 63V
2564	4822 124 40248	10μF 20% 63V
2571	4822 122 33069	33pF 5% 50V
2572	4822 122 33197	1nF 10% 50V
2573	4822 122 33197	1nF 10% 50V
2574	4822 122 33197	1nF 10% 50V
2575	4822 122 33195	100pF 10% 50V
2576	4822 122 33195	100pF 10% 50V
2577	4822 122 33195	100pF 10% 50V
2578	4822 122 33195	100pF 10% 50V
2605	4822 124 41643	100μF 20% 16V
2606	4822 124 41643	100μF 20% 16V
2613 +	4822 122 33195	100pF 10% 50V
2614 +	4822 122 33195	100pF 10% 50V
2615	4822 122 33195	100pF 10% 50V
2629 +	4822 124 41643	100μF 20% 16V
2700	4822 122 33195	100pF 10% 50V
2701	4822 122 33195	100pF 10% 50V
2702	4822 126 11714	4.7nF 20%
2703	4822 121 43526	47nF 5% 250V
2704	4822 122 33195	100pF 10% 50V
2705	4822 124 41997	470μF 10V
2706	4822 122 33195	100pF 10% 50V
2707	4822 122 33195	100pF 10% 50V
2708	4822 124 41997	470μF 10V
2709	4822 124 40196	220μF 20% 16V
2710	4822 122 33195	100pF 10% 50V
2711	4822 124 40433	47μF 20% 25V
2712	4822 124 40433	47μF 20% 25V
2713	4822 122 33195	100pF 10% 50V
2714	4822 122 33195	100pF 10% 50V
2715	4822 124 40248	10μF 20% 63V
2716	4822 124 40248	10μF 20% 63V
2717	4822 126 12785	47nF 50V
2719	4822 121 51305	15nF 10% 50V
2720	4822 121 51305	15nF 10% 50V
2721	4822 121 43187	27nF 5% 250V
2722	4822 121 43187	27nF 5% 250V
2723	4822 121 43145	33nF 10% 50V
2724	4822 122 33195	100pF 10% 50V
2725	5322 121 42489	33nF 5% 250V
2726	5322 124 41431	22μF 20% 35V
2727	4822 124 40248	10μF 20% 63V
2728	4822 124 40248	10μF 20% 63V
2729	4822 124 40242	1μF 20% 63V



2730	4822 124 40433	47μF 20% 25V
2731	4822 126 11714	4.7nF 20%
2732	4822 126 12882	100nF +80-20% 50V
2733	4822 124 40433	47μF 20% 25V
2735	4822 126 12882	100nF +80-20% 50V
2736	4822 121 43179	18nF 5% 250V
2737	4822 121 43179	18nF 5% 250V
2738	5322 121 42489	33nF 5% 250V
2739	5322 121 42489	33nF 5% 250V
2740	4822 124 40242	1μF 20% 63V
2741	4822 122 33195	100pF 10% 50V
2742	4822 122 33519	470pF 10% 50V
2743	4822 122 33195	100pF 10% 50V
2745	4822 122 33519	470pF 10% 50V
2750	4822 126 12787	330pF 10% 50V
2751	4822 126 12787	330pF 10% 50V
2752	4822 122 33195	100pF 10% 50V
2753	4822 124 40246	4.7μF 20% 63V
2754	4822 121 51387	10nF 20% 16V



3251	4822 116 52233	10k 5% 0.5W
3252	4822 116 52233	10k 5% 0.5W
3254	4822 116 52283	4k7 5% 0.5W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 116 52233	10k 5% 0.5W
3258	4822 116 52283	4k7 5% 0.5W
3259	4822 116 52277	39k 5% 0.5W
3260	4822 116 52256	2k2 5% 0.5W
3261	4822 116 52284	47k 5% 0.5W
3262	4822 050 11002	1k 1% 0.4W
3263	4822 116 52283	4k7 5% 0.5W
3264	4822 116 52234	100k 5% 0.5W
3265	4822 116 52233	10k 5% 0.5W
3266	4822 050 11002	1k 1% 0.4W
3267	4822 050 11002	1k 1% 0.4W
3268	4822 116 52233	10k 5% 0.5W
3269	4822 052 10681	△ 680Ω 5% 0.33W
3270	4822 116 52233	10k 5% 0.5W
3280	4822 053 21106	△ 10M 5% 0.5W for /37 only
3315	4822 116 52233	10k 5% 0.5W
3316	4822 116 52233	10k 5% 0.5W
3317	4822 116 52219	330Ω 5% 0.5W
3318	4822 116 52219	330Ω 5% 0.5W
3319	4822 052 10228	△ 2Ω2 5% 0.33W
3320	4822 052 10228	△ 2Ω2 5% 0.33W
3321	4822 052 10228	△ 2Ω2 5% 0.33W
3322	4822 052 10228	△ 2Ω2 5% 0.33W
3323	4822 116 52175	100Ω 5% 0.5W
3324	4822 116 52175	100Ω 5% 0.5W



3325	4822 052 10228	△ 2Ω2 5% 0.33W
3326	4822 052 10228	△ 2Ω2 5% 0.33W
3327 +	4822 050 11002	1k 1% 0.4W
3328 +	4822 050 11002	1k 1% 0.4W
3350	4822 116 52195	47Ω 5% 0.5W
3501	4822 116 52231	820Ω 5% 0.5W
3502	4822 116 52231	820Ω 5% 0.5W
3503	4822 116 52257	22k 5% 0.5W
3504	4822 116 52257	22k 5% 0.5W
3505	4822 116 52233	10k 5% 0.5W
3506	4822 116 52233	10k 5% 0.5W
3507	4822 116 52257	22k 5% 0.5W
3508	4822 116 52257	22k 5% 0.5W
3509	4822 116 52296	6k8 5% 0.5W
3510	4822 116 52296	6k8 5% 0.5W
3511	4822 116 52263	2k7 5% 0.5W
3512	4822 116 52263	2k7 5% 0.5W
3513 +	4822 116 52235	1M 5% 0.5W
3514 +	4822 116 52235	1M 5% 0.5W
3515 +	4822 116 52235	1M 5% 0.5W
3516 +	4822 116 52235	1M 5% 0.5W
3517 +	4822 116 52269	3k3 5% 0.5W
3518 +	4822 116 52269	3k3 5% 0.5W
3519 +	4822 116 52276	3k9 5% 0.5W
3520 +	4822 116 52276	3k9 5% 0.5W
3521 +	4822 116 52249	1k8 5% 0.5W
3522 +	4822 116 52249	1k8 5% 0.5W
3523	4822 116 52175	100Ω 5% 0.5W
3524	4822 116 52175	100Ω 5% 0.5W
3527	4822 116 52235	1M 5% 0.5W
3528	4822 116 52235	1M 5% 0.5W
3529	4822 116 52269	3k3 5% 0.5W
3530	4822 116 52269	3k3 5% 0.5W
3531	4822 116 52238	12k 5% 0.5W
3532	4822 116 52238	12k 5% 0.5W
3533	4822 116 52263	2k7 5% 0.5W
3534	4822 116 52263	2k7 5% 0.5W
3535	4822 116 52224	470Ω 5% 0.5W
3536	4822 116 52224	470Ω 5% 0.5W
3537	4822 116 52224	470Ω 5% 0.5W
3538	4822 050 11002	1k 1% 0.4W
3539	4822 050 11002	1k 1% 0.4W
3541	4822 116 52233	10k 5% 0.5W
3542	4822 116 52233	10k 5% 0.5W
3543	4822 052 10339	△ 33Ω 5% 0.33W
3544	4822 052 10339	△ 33Ω 5% 0.33W
3549 +	4822 052 10339	△ 33Ω 5% 0.33W
3550	4822 050 11002	1k 1% 0.4W
3551	4822 050 11002	1k 1% 0.4W
3552	4822 116 52234	100k 5% 0.5W
3553	4822 116 52207	1k2 5% 0.5W

+ Not for /37



3554	4822 050 11002	1k 1% 0.4W
3555	4822 050 11002	1k 1% 0.4W
3556	4822 116 52269	3k3 5% 0.5W
3557	4822 116 52234	100k 5% 0.5W
3558	4822 116 52271	33k 5% 0.5W
3559	4822 116 52304	82k 5% 0.5W
3560	4822 116 52304	82k 5% 0.5W
3561	4822 116 52235	1M 5% 0.5W
3562	4822 116 52235	1M 5% 0.5W
3563	4822 116 52269	3k3 5% 0.5W
3564	4822 116 52269	3k3 5% 0.5W
3565	4822 116 52263	2k7 5% 0.5W
3566	4822 116 52263	2k7 5% 0.5W
3567	4822 116 52222	390Ω 5% 0.5W
3568	4822 116 52222	390Ω 5% 0.5W
3569	4822 116 52235	1M 5% 0.5W
3570	4822 116 52235	1M 5% 0.5W
3571	4822 116 52271	33k 5% 0.5W
3573	4822 116 52256	2k2 5% 0.5W
3574	4822 116 52256	2k2 5% 0.5W
3621 +	4822 050 11002	1k 1% 0.4W
3622 +	4822 050 11002	1k 1% 0.4W
3700	4822 050 11002	1k 1% 0.4W
3701	4822 050 11002	1k 1% 0.4W
3703	4822 116 52215	220Ω 5% 0.5W
3705	4822 116 52175	100Ω 5% 0.5W
3706	4822 116 52276	3k9 5% 0.5W
3707	4822 116 52175	100Ω 5% 0.5W
3708	4822 116 52238	12k 5% 0.5W
3709	4822 116 52252	180k 5% 0.5W
3710	4822 116 52251	18k 5% 0.5W
3711	4822 116 52256	2k2 5% 0.5W
3712	4822 116 52215	220Ω 5% 0.5W
3713	4822 116 52289	5k6 5% 0.5W
3714	4822 116 52175	100Ω 5% 0.5W
3716	4822 116 52252	180k 5% 0.5W
3717	4822 116 52296	6k8 5% 0.5W
3718	4822 116 52252	180k 5% 0.5W
3719	4822 116 52175	100Ω 5% 0.5W
3720	4822 050 26808	6Ω 8 1% 0.6W
3721	4822 116 52249	1k8 5% 0.5W
3722	4822 116 52256	2k2 5% 0.5W
3723	4822 116 52251	18k 5% 0.5W
3724	4822 116 52289	5k6 5% 0.5W
3725	4822 116 52238	12k 5% 0.5W
3727	4822 116 52276	3k9 5% 0.5W
3728	4822 116 52296	6k8 5% 0.5W
3731	4822 116 52235	1M 5% 0.5W
3732	4822 116 52249	1k8 5% 0.5W
3733	4822 050 26808	6Ω 8 1% 0.6W
3734	4822 111 30893	4M7 5% 0.2W
3735	4822 116 52235	1M 5% 0.5W



3737	4822 116 52207	1k2 5% 0.5W
3738	4822 116 52303	8k2 5% 0.5W
3740	4822 116 52234	100k 5% 0.5W
3741	4822 052 10109 Δ	10Ω 5% 0.33W
3742	4822 116 52289	5k6 5% 0.5W
3745	4822 116 52256	2k2 5% 0.5W
3746	4822 116 52235	1M 5% 0.5W
3750	4822 116 52235	1M 5% 0.5W
3751	4822 116 81682	2M2 5% 0.5W
3752	4822 116 52235	1M 5% 0.5W
3754	4822 111 30893	4M7 5% 0.2W
3755	4822 116 81682	2M2 5% 0.5W
3756	4822 116 52234	100k 5% 0.5W
3758	4822 111 30893	4M7 5% 0.2W
3759	4822 116 52283	4k7 5% 0.5W
3760	4822 116 52235	1M 5% 0.5W
3761	4822 116 52234	100k 5% 0.5W
3765	4822 116 52234	100k 5% 0.5W
3767	4822 116 52256	2k2 5% 0.5W
3768	4822 116 52257	22k 5% 0.5W
3769	4822 116 52298	680k 5% 0.5W
3771	4822 116 52298	680k 5% 0.5W
3775	4822 116 52283	4k7 5% 0.5W
3776	4822 116 52257	22k 5% 0.5W
3777	4822 116 52256	2k2 5% 0.5W
3778	4822 116 52257	22k 5% 0.5W
3780	4822 116 52233	10k 5% 0.5W
3781	4822 116 52234	100k 5% 0.5W
3782	4822 116 52235	1M 5% 0.5W
3784	4822 111 30893	4M7 5% 0.2W
3785	4822 116 52235	1M 5% 0.5W
3786	4822 116 52249	1k8 5% 0.5W
3787	4822 116 52249	1k8 5% 0.5W
3789	4822 116 52283	4k7 5% 0.5W
3790	4822 050 11002	1k 1% 0.4W
3791	4822 116 52285	470k 5% 0.5W
3794	4822 116 52235	1M 5% 0.5W
3797	4822 116 52257	22k 5% 0.5W
3798	4822 116 52256	2k2 5% 0.5W
3799	4822 116 52235	1M 5% 0.5W
3800	4822 116 52285	470k 5% 0.5W
3801	4822 116 52235	1M 5% 0.5W
3804	4822 116 52256	2k2 5% 0.5W
3805	4822 116 52235	1M 5% 0.5W
3806	4822 116 81682	2M2 5% 0.5W
3807	4822 116 52285	470k 5% 0.5W
3808	4822 116 52215	220Ω 5% 0.5W
3809	4822 116 52215	220Ω 5% 0.5W
3810	4822 116 52215	220Ω 5% 0.5W
3811	4822 116 52215	220Ω 5% 0.5W
3812	4822 116 52244	15k 5% 0.5W
3813	4822 116 52289	5k6 5% 0.5W
3814	4822 116 52289	5k6 5% 0.5W



3815	4822 116 52244	15k 5% 0.5W
3817	4822 111 30893	4M7 5% 0.2W
3818	4822 050 11002	1k 1% 0.4W



5280	4822 146 31352 Δ	Mains Transformer
5281	4822 157 70003 Δ	Mains Choke Coil
5311 +	4822 157 62552	2.2μH 20%
5312 +	4822 157 62552	2.2μH 20%
5315	4822 157 62552	2.2μH 20%
5316	4822 157 62552	2.2μH 20%
5701	4822 156 20946	Osc Coil 100kHz



6250	4822 130 82079 Δ	D3SBA20
6251	4822 130 30621	1N4148
6252	4822 130 30621	1N4148
6253	4822 130 34173	BZX79-C5V6
6254	4822 130 30621	1N4148
6255	5322 130 30684 Δ	1N4002
6257	5322 130 30684 Δ	1N4002
6258	5322 130 30684 Δ	1N4002
6259	4822 130 30621	1N4148
6260	5322 130 30684	1N4002
6261	4822 130 34233	BZX79-C5V1
6350 +	4822 130 30621 Δ	1N4148
6351	4822 130 30621	1N4148
6354 +	4822 130 30621 Δ	1N4148
6355 +	4822 130 30621 Δ	1N4148
6501	4822 130 30621	1N4148
6502	4822 130 30621	1N4148
6503	4822 130 30621	1N4148
6504	4822 130 30621	1N4148
6505	4822 130 30621	1N4148
6510	4822 130 30621	1N4148
6700	4822 130 30621	1N4148
6701	4822 130 30621	1N4148
6704	4822 130 30621	1N4148
6706	4822 130 30621	1N4148
6709	4822 130 30621	1N4148
6710	4822 130 30621	1N4148
6711	4822 130 30621	1N4148
6714	4822 130 30621	1N4148
6716	4822 130 30621	1N4148
6719	4822 130 30621	1N4148
6720	4822 130 30621	1N4148
6721	4822 130 30621	1N4148
6724	4822 130 30621	1N4148
6728	4822 130 30621	1N4148
6729	4822 130 30621	1N4148



6730	4822 130 30621	1N4148
6732	4822 130 30621	1N4148
6734	4822 130 30621	1N4148
6735	4822 130 30621	1N4148
6736	4822 130 30621	1N4148
6738	4822 130 32574	1SS106
6739	4822 130 30621	1N4148
6740	4822 130 30621	1N4148
6741	4822 130 30621	1N4148



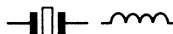
7250	4822 130 40937	BC548B
7252	4822 130 61236 Δ	BD234
7253	4822 130 40937	BC548B
7254	4822 130 40937	BC548B
7255	4822 130 44197	BC558B
7256	4822 130 40937	BC548B
7257	4822 209 80891 Δ	MC7805CT
7313	4822 209 73356 Δ	AN7161N(FP)
7314	4822 209 73356 Δ	AN7161N(FP)
7501	4822 209 10263	HEF4052B
7502	5322 209 10421	HEF4094BP
7503 +	4822 130 44246	BC549C
7504 +	4822 130 44246	BC549C
7505	4822 130 44246	BC549C
7506	4822 130 44246	BC549C
7507	4822 130 40937	BC548B
7508	4822 130 40937	BC548B
7509	4822 130 40937	BC548B
7510	4822 209 30537	TC9153P
7511	4822 130 44246	BC549C
7512	4822 130 44246	BC549C
7513	5322 130 44779	BC338-40
7514	5322 130 44779	BC338-40
7533	5322 130 44779	BC338-40
7534	5322 130 44779	BC338-40
7702	4822 130 63494	J111
7703	5322 130 44779	BC338-40
7706	4822 130 44196	BC548C
7708	4822 130 44196	BC548C
7709	5322 130 60068	BC558C
7710	4822 130 44196	BC548C
7711	4822 130 44196	BC548C
7712	4822 130 44196	BC548C
7713	4822 209 32919	HEF4952BT
7714	4822 209 32918	AN7318S
7715	4822 209 32919	HEF4952BT
7716	4822 130 44196	BC548C
7719	4822 130 44196	BC548C
7720	4822 209 32919	HEF4952BT

+ Not for /37

Note: Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS - KARAOKE BOARD (For Karaoke version only)

MISCELLANEOUS		
1551	4822 267 40898	Mic Socket
1553	4822 276 12571	Vocal Fade Switch
		
2630	5322 121 42661	330nF 5% 63V
2631	5322 121 42661	330nF 5% 63V
2632	4822 124 40244	2.2μF 20% 63V
2633	4822 124 40244	2.2μF 20% 63V
2634	5322 121 42662	68nF 5% 250V
2635	5322 121 42662	68nF 5% 250V
2636	4822 124 40244	2.2μF 20% 63V
2637	4822 124 40244	2.2μF 20% 63V
2640	4822 124 41643	100μF 20% 16V
2641	4822 124 41643	100μF 20% 16V
2642	4822 124 41643	100μF 20% 16V
2643	4822 124 40246	4.7μF 20% 63V
2644	4822 122 33069	33pF 5% 50V
2645	4822 124 40246	4.7μF 20% 63V
2646	4822 122 33069	33pF 5% 50V
2647	4822 124 40244	2.2μF 20% 63V
2648	4822 124 40246	4.7μF 20% 63V
2649	4822 126 11585	22nF +80-20% 25V
2650	4822 126 11585	22nF +80-20% 25V
2651	4822 126 11585	22nF +80-20% 25V
2652	4822 126 12787	330pF 10% 50V
2653	4822 126 12787	330pF 10% 50V
2654	4822 122 33195	100pF 10% 50V
2655	4822 122 33195	100pF 10% 50V
2656	4822 122 33197	1nF 10% 50V
2658	4822 122 33197	1nF 10% 50V
2659	4822 122 33848	47pF 5% 50V
2660	4822 124 40248	10μF 20% 63V
2661	4822 124 40248	10μF 20% 63V
		
3630	4822 116 52251	18k 5% 0.5W
3631	4822 116 52251	18k 5% 0.5W
3632	4822 116 52234	100k 5% 0.5W
3633	4822 116 52234	100k 5% 0.5W
3634	4822 116 52265	270k 5% 0.5W
3635	4822 116 52265	270k 5% 0.5W
3636	4822 116 52289	5k6 5% 0.5W
3637	4822 116 52289	5k6 5% 0.5W
3638	4822 116 52263	2k7 5% 0.5W
3639	4822 116 52263	2k7 5% 0.5W
3640	4822 116 52303	8k2 5% 0.5W
3641	4822 116 52303	8k2 5% 0.5W
3642	4822 116 52244	15k 5% 0.5W
3643	4822 116 52244	15k 5% 0.5W

		
3644	4822 116 52234	100k 5% 0.5W
3645	4822 116 52234	100k 5% 0.5W
3646	4822 116 52234	100k 5% 0.5W
3647	4822 116 52234	100k 5% 0.5W
3652	4822 116 81682	2M2 5% 0.5W
3653	4822 116 81682	2M2 5% 0.5W
3654	4822 116 52249	1k8 5% 0.5W
3655	4822 116 52249	1k8 5% 0.5W
3656	4822 116 52219	330Ω 5% 0.5W
3657	4822 116 52219	330Ω 5% 0.5W
3658	4822 116 52175	100Ω 5% 0.5W
3659	4822 116 52175	100Ω 5% 0.5W
3660	4822 116 52284	47k 5% 0.5W
3661	4822 116 52207	1k2 5% 0.5W
3662	4822 116 52289	5k6 5% 0.5W
3663	4822 116 52226	560Ω 5% 0.5W
3664	4822 050 11002	1k 1% 0.4W
3665	4822 116 52249	1k8 5% 0.5W
3666	4822 116 52224	470Ω 5% 0.5W
3667	4822 116 52243	1k5 5% 0.5W
3668	4822 116 52245	150k 5% 0.5W
3669	4822 116 52258	220k 5% 0.5W
3671	4822 116 52234	100k 5% 0.5W
3672	4822 116 52234	100k 5% 0.5W
3673	4822 101 21204	Potm. Rotary 20KA
3674	4822 116 52207	1k2 5% 0.5W
3675	4822 052 10339	△ 33Ω 5% 0.33W
3676	4822 116 52207	1k2 5% 0.5W
		
5630	4822 157 52286	22μH 1 0%
5631	4822 157 52286	22μH 1 0%
		
7630	4822 130 44246	BC549C
7631	4822 130 44246	BC549C
7632	4822 130 44246	BC549C
7633	4822 130 44246	BC549C
7634	4822 130 44246	BC549C
7635	4822 130 44246	BC549C

Note: Only the parts mentioned in this list are normal service spare parts.

CDC MECHANISM REPAIR HINTS

A. Procedure to remove the CDC from the set. (Refer to set disassembly drawing)

1. To open the CD tray, turn the PULLEY A(see Fig.1) clockwise.
2. Remove the nose piece (position no.264)
3. Unscrew the two mounting screws at the rear of the CDC and remove the CDC.

B. If the CD tray is jammed,

1. Unplug connector from socket 1802(refer to CD circuits).
2. Apply 5V across PIN 3 & 4 to bring the CD mechanism down.
CAUTION : Tray can only be opened when CD mechanism is down and before GEAR C & D disengage.
3. Apply 5V across PIN 1 & 2 to bring the tray out.
4. Proceed with **A**.

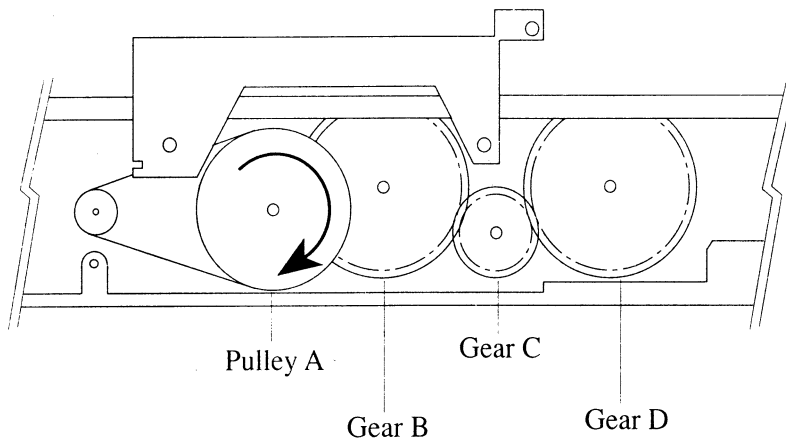


Fig. 1 Right-side view of CDC mechanism

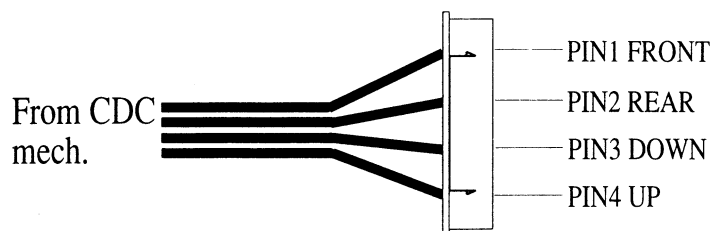


Fig. 2 Item 92 of CDC mechanism